

COMPETENCY BASED FRAMEWORK FOR MINING ENGINEER

Version 1.0



Department of Geology & Mines Ministry of Economic Affairs Royal Government of Bhutan 2022

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Task Force Members:

- 1. Chabilal Dhital, Executive Mining Engineer, Mining Division, DGM
- 2. Binesh Pradhan, Executive Mining Engineer, Mineral Development Division, DGM
- 3. Nityam Nepal, Sr. Geologist, Earthquake & Geophysics Division, DGM
- 4. Ugyen Lhamo Choden, Geologist, Geoscience & Mineral Division, DGM
- 5. Tashi Dema, Dy. Executive Engineer (Drilling), Geoscience & Mineral Division, DGM

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1. Background

1.1 About the Department of Geology & Mines

The Department of Geology and Mines (DGM) was established in April 1981 after the 43rd resolution of Lhengye Zhungtshog. Prior to the establishment of the DGM in April 1981, most of the geological mapping and mineral exploration activities in the country were undertaken by the Geological Survey of India (GSI) who continued their work simultaneously with the DGM until their exit in 2002. The geoscience and mining activities in the country are governed by Mineral Development Policy 2017, Mines and Minerals Management Act of the Kingdom of Bhutan 1995, and Rules, Regulations and Guidelines thereof. The Department is responsible for administration, management and regulation of scarce & equitable mineral resources of the country through a sustainable mining development framework.

1.2 Vision of the Department/Agency

To contribute to sustainable socio-economic development through geo-scientific studies and scientific management of mineral resources in the kingdom

1.3 Missions of the Department

- To enable optimal exploitation of the mineral resource in a scientific manner compatible with the social and economic policy of the Royal Government and within the framework of sustainable development, protection of environment, mineral conservation and preservation of the country's precious religious and cultural heritage;
- 2. To provide input for national development and social welfare to the citizens of Bhutan by opening up venue for investment and employment;
- 3. To apply geo-scientific expertise in prevention and mitigation of natural disasters resulting from geological hazards, thus contributing to the welfare of all Bhutanese citizens leading to Gross National Happiness.

1.4 Core Values

- 1. Work ethics & Integrity
- 2. Professionalism
- 3. Public Service commitment
- 4. Team Work

1.5 Core Functions

The main mission of the Department is to steer optimal exploitation of the mineral resource in a scientific manner and within the framework of sustainable development, protection of environment, mineral conservation and preservation of the country's precious religious and

cultural heritage thus contributing to the national development towards promotion of happiness for all Bhutanese guided by the development philosophy of GNH.

In order to ensure smooth implementation of plans, policies and programs, it must also facilitate the carrying out the activities with clear delineation of policy and regulatory functions to enable independence and autonomy of functions. These categories of roles are served by the Department through the following structural set-up.

Table 1: Functions of Mineral Development Division and Mining Division

Divisions	Roles/Functions				
Mineral	- Draft and review of policies, Act, rules & regulations and guidelines				
Development	related to mineral and mining				
Division (MDD)	- to issue and administer permits for prospecting and exploration				
	- to assess and decide on the lease of mines; and				
	- to propose and periodically revise the royalty and mineral rent and				
	establish the applicable fees and charges.				
Mining Division	- to regulate & monitor all mining and related activities;				
(MD)	- to levy and collect royalty, mineral rent, fees and applicable charges				
	-Collection and management of Environment Restoration Bond (ERB)				
	and ensuring successful mine reclamations				
	- to issue and administer permits for surface collection of minerals,				
	sand and stones				

1.6 Organogram

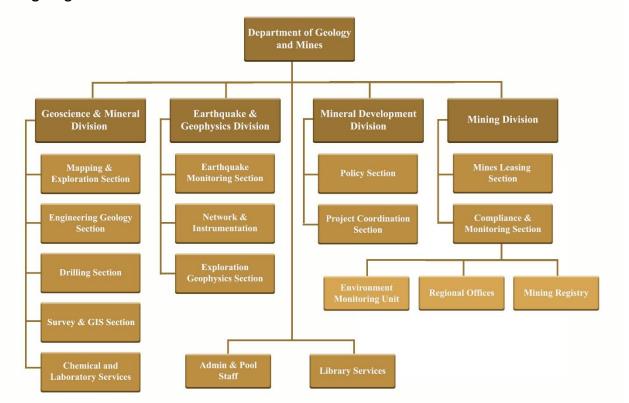


Figure 1: Organogram of DGM

2 Competency-Based Framework for Mining Engineers

2.1 Introduction

The Royal Civil Service Commission (RCSC) has introduced Competency Based Framework (CBF) with the objective of enhancing service delivery of the civil servants through providing a platform for desired professional development. In absence of a relevant framework to guide the professional development of the civil servants in the country, competency and efficiency at the workplace have always been a concern to realize the national goals and objectives. The RCSC has recognized the need to enhance service delivery of civil servants through professional and personal development which will have sustainable impact in the system. With introduction of CBF across all the major occupational groups, civil servants will be guided by the principles of knowledge, skills and ability and is expected to enhance performance and service delivery. The Competency Based Framework of the Mining Engineer has been developed to enhance the capacity and competencies of the Mining Engineer to improve the working efficiency and service delivery, in line with the Department's vision and mission and core values. Therefore, this Competency Based Framework is a living document and is subject to periodical review and improvement.

2.2 Purpose

The CBF highlights the knowledge, skills and abilities required for a Mining Engineer 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

Build a fraternity of Mining Engineers who are highly knowledgeable, skillful and competent in delivering efficient and effective services of the highest standard.

2.4 Objectives

The objectives of the framework are as follows:

- i. Delineate clear roles and responsibilities of Mining Engineers
- ii. To enhance professional development through various methods of interventions to address the competency gaps;
- iii. Enhance and strengthen the capacity of the Mining Engineer by implementing Competency based-framework HR development initiatives.
- iv. Assess, maintain, and monitor the KSAs of Mining Engineers;
- v. Identify major performance gaps and competency development interventions for the Mining Engineers;
- vi. Ensure continuous process of learning and professional development;
- vii. Identify and develop talent for leadership positions in the future.

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. The framework is endorsed by the 43rd Departmental Human Resource Committee (DHRC) held on March 31st, 2022, 411th Ministerial Human Resource Committee (MHRC) meeting of the Ministry of Economic Affairs held on April 8, 2022 and subsequently final endorsement of the document by the Royal Civil Service Commission during its 139th Commission Meeting held on 17th May, 2022.

2.6 Structure

Brief explanation and diagrammatic overview of the CBF

The framework has identified clear key roles, competencies, and behavioral indicators of each proficiency level to achieve professional excellence. The framework comprises of 3 Key Roles identifying 9 Competency areas. The 9 Competency domains cascades into 26 Key Competencies supported by 65 Behavioral Indicators spreading over 4 Level of Proficiencies (Foundation, Intermediate, Experienced & Advanced levels).

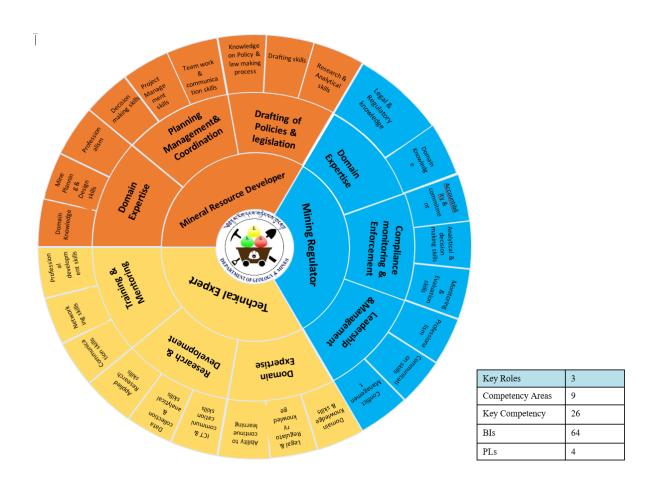


Figure 2: Diagrammatic overview of the CBF for Mining Engineer

2.6.1 Identification of Key Role

The key role is an organized set of behaviors that are crucial to achieve the current and future goals of the Department of Geology & Mines. Following are the key roles expected to be performed by the Mining Engineer:

- a. Mineral Resource Developer
- b. Mining Regulator
- c. Technical Expert

2.6.2 Description of Role Profile

The role profile is the description of roles that Mining Engineers are expected to demonstrate in achieving the outcomes of the Department of Geology & Mines. 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 Mining Engineers to carry out a prescribed set of tasks.

2.6.3 Role Profile of Mining Engineer

Table 2: Role Profile of Mining Engineer

SN	Key Role	Role Description
1	Mineral Resource Developer	 Draft and review of policies, Rules & regulations and guidelines related to mineral and mining; Formulate mining strategy and development plans Conduct feasibility study of mineral resources for mining Review and approve mining project proposal Issue Mining leases and Permits Promote Mineral Based Industries and value chain creation Collaborate with Revise Mineral Fiscal Regime
2	Mining Regulator	 Enforce the provisions of mining act & regulations and guidelines Regulate & monitor the mining operations for compliance to the act, regulations, environmental & OHS standards, guidelines etc. Collect the mineral levies Collect and manage Environment Restoration Bond (ERB) Ensure mine restoration/reclamation and closure. Ensure operation of the mines in accordance to the approved FMFS Report Provide mining codes, practices and standards Collaborate and coordinate with the other enforcement agencies Carry out performance evaluation of Mines Manage & disseminate information on mining Analyze mining intelligence to have effective control mechanism Evaluate Mine Feasibility Study report
3	Technical Expert	 Provides technical recommendation on matters related to mining policy, act, regulations and standards Provide professional advice to plans and policies related to environment, taxation, fiscal incentives, FDI, economic development, etc. Provide technical advice on mining methods and operations Undertake research on mining technology best practices. Train and mentor colleagues and relevant stakeholders to enhance skills and competencies for responsible mining practices

2.6.4 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 Mining Engineer. The framework has identified 9 competency areas as follows:

Table 3: Key Roles & Competency Areas for Mining Engineer

Role #	Key Role	Competency Area			
		1.1 Drafting of policies & legislation			
1	Mineral Resource Developer	1.2 Mining Engineering Principles			
		1.3 Planning, Management & Coordination			
		2.1 Mining Engineering Principles			
2	Mining Regulator	2.2 Compliance & Enforcement			
		2.3 Leadership and Management			
		3.1 Mining Engineering Principles			
3	Technical Expert	3.2 Research & Development			
		3.3 Training & Mentoring			

2.6.5 Identification of Key Competencies

The key competency is an observable behavior that indicates the presence of the particular competency. Generally, it is broadly divided as core competency, leadership competency and technical or functional competency. The framework has identified 26 key competencies which are presented as below:

Table 4: Key Roles, Competency Area and Key Competencies for Mining Engineer

SN	Key Role	Competency Area	Key Competencies		
		1.1 Drafting of policies	1.1.1 Knowledge on Policy & law making process		
		& legislation	1.1.2. Drafting skills		
			1.1.3 Research & Analytical skills		
	Mineral Resource		1.2.1 Mining Engineering Knowledge		
1.	Developer	1.2 Domain Expertise	1.2.2. Mine Planning & Design skills		
	Developer		1.2.3. Professionalism		
		1.3 Planning,	1.3.1. Decision making skills		
		Management &	1.3.2. Project management skills		
		Coordination	1.3.3 . Team work & Communication		
			skills		
	Mining Regulator	2.1 Domain Expertise	2.1.1 . Legal & Regulatory knowledge		
		2.1 Domain Expertise	2.1.2. Mining Engineering Principles		
		2.2 Compliance &	2.2.1. Monitoring & evaluation skills		
2.		Enforcement	2.2.2. Analytical & decision-making skills		
۷.	Willing Regulator		2.2.3. Accountability & Commitment		
		2.3 Leadership and	2.3.1. Professionalism		
		Management	2.3.2. Communication skills		
			2.3.3. Conflict Management		
			3.1.1. Mining Engineering Knowledge		
3	Technical Expert	3.1 Domain Expertise	3.1.2. Legal & Regulatory knowledge		
3	rechnical Expert		3.1.3. Ability to continue learning		
			3.2.1. Applied research skills		

3.2 Research &	3.2.2. Data collection & Analytical skills
Development	3.2.3. ICT & communication skills
2.2 Training 0	3.3.1. Communication skills
3.3 Training &	3.3.2. Professional development skills
Mentoring	3.3.3. Networking skills

2.6.6 Identification of Behavioral Indicators

The Behavioral Indicators are 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 65 behavioral indicators.

Table 5: Behavioral Indicators for the 3 Key Roles

Key Role 1: Mine	Key Role 1: Mineral Resource Developer					
Competency Area	Key Competencies	Behavior Indicators				
	1.1.1 Knowledge on Policy & law making process	 Exhibit understanding of protocols for policy formulation and approval process Exhibit understanding of regulatory impact assessment, law drafting instructions, rules of procedures, etc. of the country. 				
1.1 Drafting of policies & legislation	1.1.2. Drafting skills	 Provides inputs in the formulation, revision and amendment of Mining related policies, laws, guidelines and standards. Demonstrates knowledge and skills on policy analysis tools 				
	1.1.3 Research & Analytical skills	 Understands the international standards and best practices in policies & law making, Conducts research and analysis on public policies in order to ensure that policies are relevant to the current needs of the nation and changing global scenario. 				
1.2 Domain Expertise	1.2.1 Mining Engineering Knowledge	 Possess knowledge on mining methods, engineering principles, environmental management, sustainable mining development concepts & approaches and mineral production and value chain creation. Demonstrates knowledge on legal and regulatory aspects on Mining, Environment, Social & resource governance 				
	1.2.2. Mine Planning & Design skills	Understands and interprets geology and deposit attributes, resource information & geological controls and structures for mine planning & design				

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Γ	T					
		2. Ability to use mine planning & optimization tools and software3. Possess knowledge on mineral economics & financial analysis				
	1.2.3. Professionalism	 Demonstrates professionalism, maintains ethical conduct, integrity and confidentiality. Applies specialized knowledge, skills & judgment in delivering the professional services 				
	1.3.1. Decision making skills	 Analyses the situation and relevant information to draw conclusions and take decisions objectively. Delegates roles, responsibilities and authorities for day-to-day functions of the organization 				
1.3 Planning, Management & Coordination	1.3.2. Project management skills	 Mobilizes & manages resources for the project towards achieving desired results. Consult with the stakeholders to have inclusive decision Exhibit ability to identify risk & manage with appropriate tools and techniques 				
	1.3.3 Team work & Communication skills	 Collaborates and build networks with the stakeholders for coordinated approach for common solutions Establish effective communication both within and outside the organization Exhibits the ability to work in team and motivate others through active interaction and participation 				
Key Role 2: Minin	g Regulator					
Competency Area	Key Competencies	Behavior Indicators				
2.1 Domain Expertise	2.1.1 Legal & Regulatory knowledge	 Demonstrates understanding of mining related laws and instruments for resource governance. Demonstrates understanding on Inspectorial roles & responsibilities. Provides inputs in the formulation, revision and amendment of mining related policies, laws, guidelines and standards 				
	2.1.2. Mining Engineering Principles	1. Possess knowledge on mining methods, engineering principles, environmental management, OHS, sustainable mining development concepts & approaches and mineral production and value chain creation.				

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Key Role 3: Techn Competency	ical Expert Key Competencies	Behavior Indicators
	2.3.3. Conflict Management	 Demonstrates an ability to anticipate & negotiate possible conflicts with effective conflict resolution tools and techniques. Proactively liaises with stakeholders to solve problems, encourages participation and acknowledges different views
2.3 Leadership and Management	2.3.2. Communication skills	1. Demonstrates an ability to listen, process information and communicate effectively 2. Exhibits positive attitude and receptiveness to ensure effective exchange of views and knowledge 3. Maintains proactive and timely communications with the stakeholders
	2.3.1. Professionalism	 Demonstrates and promotes professional ethics and code of conduct to enhance compliance and enforcement culture. Applies specialized knowledge, skills & judgment in delivering the professional services
	2.2.3.Accountability & Commitment	 Takes responsibility for own work, decisions and actions. Demonstrates commitment and dedication to the assigned task to achieve expected results. Ability to respond and attend to the stakeholder needs/concerns
2.2Compliance & Enforcement	2.2.2. Analytical & decision making skills	 Provides alternative solutions to a problem. Ability to analyze and interpret information for decision making. Delegates roles, responsibilities and authorities for day-to-day functions of the organization
	2.2.1. Monitoring & evaluation skills	 Demonstrates knowledge on mineral taxation and its application Ensures compliance and enforcement culture to promote best mining practices. Conduct mining & environmental monitoring and provide evidence-based recommendations. Exhibits emotional intelligence while handling situation

	3.1.1. Mining Engineering Knowledge	 Demonstrates knowledge in the field of Mining engineering & sustainable mining development approaches Possess knowledge on mining operations and optimization techniques. Demonstrates knowledge on mineral resource governance tools for effective implementation of mineral development policy and legislation.
3.1 Domain Expertise	3.1.2. Legal & Regulatory knowledge	 Ability to interpret and explain all the provisions of the mining laws Provides inputs in the formulation, revision and amendment of mining related policies, laws, guidelines and standards. Ability to apply legal and regulatory measures for effective implementation of plans and policies.
	3.1.3. Ability to continue learning	 Ability to identify the knowledge & skill gaps and needs for continuous learning. Continuously pursues personal learning and development opportunities to enhance professional growth and development. Demonstrates curiosity for learning latest technologies and best practices
3.2 Research &	3.2.1. Applied research skills	 Identifies problems and opportunities and develops appropriate research methodologies. Ability to Interpret research findings using appropriate methods for evidence-based decision making. Ability to analyze mineral commodity demand and opportunities in the global markets to promote economic development
Development	3.2.2. Data collection & Analytical skills	 Ability to conduct quantitative and qualitative analysis using appropriate methods. Ability to use required data analytical tools and techniques.
	3.2.3. ICT & communication skills	 Demonstrates knowledge and skills on ICT tools, technologies and software. Ability to recognize digital transformation & leveraging its opportunities for improved service delivery
3.3 Training &	3.3.1. Communication skills	1.Ability to communicate with audiences through appropriate channels

Mentoring	3.3.2. Professional development skills	 Ability to carry out succession planning for mining professionals' continuity and effective service delivery Ability to recognize and promote technical capacity in an organization. Ability to develop training plans, modules and curriculum for mining professionals
	3.3.3. Networking skills	 Ability to build strong networks with stakeholders for coordinated approach in knowledge sharing. Creates conducive working culture that promotes teamwork, coordination and collaboration.

2.6.7 Classification of Proficiency Levels

The proficiency level is categorized based on the level of expertise. It describes the levels of a competency required to perform a specific job successfully. There is a progression of proficiencies at each level. The proficiency level of Mining Engineer is categorized into four levels as follows;

- i. Foundation (P4)
- ii. Intermediate (P3)
- iii. Experienced (P2)
- iv. Advanced (P1)

The framework has identified 64 behavioral indicators across four levels of proficiency.

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. Further, the proficiency level will set a benchmark for the recruitment and deployment. The proficiency levels of each key competency are detailed below:

Table 6: Number of Behavioral Indicators for the Proficiency Levels of Key Role 1

Key Role 1: Mineral Resource Developer					
Competency Area: 1.	Competency Area: 1.1 Drafting of Policies and legislation				
Key Competency: 1.1	.1 Knowledge on Policy &	law-making process			
Behavior Indicator: 1 approval process	Behavior Indicator: 1.1.1.1 Exhibit understanding of protocols for policy formulation and approval process				
Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)		
Demonstrate basic understanding of understanding of protocols for policy formulation and approval process Demonstrate good understanding of understanding of understanding of protocols for policy formulation and approval process Exhibits clear understand demonstrate in-dep protocols for policy understanding of the protocols for policy approval process					

	formulation and approval process

Behavior Indicator: 1.1.1.2 Exhibit understanding of regulatory impact assessment, law drafting instructions, rules of procedures, etc. of the country.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Exhibits basic understanding of regulatory impact assessment, law drafting instructions, rules and procedures, etc. of the country	Exhibits good understanding of regulatory impact assessment, law drafting instructions, rules and procedures, etc. of the country	Demonstrate advance understanding of regulatory impact assessment, law drafting instructions, rules and procedures, etc. of the country.	Leads and exhibits in- depth understanding of regulatory impact assessment, law drafting instructions, rules and procedures, etc. of the country and other international instruments

Key Competency: 1.1.2 Drafting Skills

Behavior Indicator: 1.1.2.1 Provides inputs in the formulation, revision and amendment of Mining related policies, laws, guidelines and standards.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Provides basic inputs in the formulation, revision and amendment of Mining related policies, laws, guidelines and standards.	Proactively inputs in the formulation, revision and amendment of Mining related policies, laws, guidelines and standards.	Draft & finalize the provisions of Mining related policies, laws, guidelines and standards.	Lead & guides subordinates in the formulation, revision and amendment of Mining related policies, laws, guidelines and standards.

Behavior Indicator: 1.1.2.2 Demonstrates knowledge and skills on policy analysis tools.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)

Exhibit good	Demonstrates	Demonstrates in-
knowledge and skills	advance knowledge	depth knowledge and
and identification of	and skills on policy	skills on policy
various policy analysis	analysis tools for	analysis tools and at
tools.	better outcome.	the same time
		possess good
		knowledge on its
		implementation for
		better result
	knowledge and skills and identification of various policy analysis	knowledge and skills advance knowledge and identification of various policy analysis analysis tools for

Key Competency: 1.1.3 Research & Analytical skills

Behavior Indicator: 1.1.3.1 Understands the international standards and best practices in policies & law-making process

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Demonstrate basic understanding of international standards and best practices in policies & law-making processes	Demonstrate advanced understanding of international standards and best practices in policies & law-making process	Interprets the standards, practices & codes adopted in the international policy & law-making process	Interprets the standards, practices & codes adopted in the international policy & law-making process and explain rationales & principles

Behavior Indicator: 1.1.3.2 Conducts research and analysis on public policies in order to ensure that policies are relevant to the current needs of the nation and changing global scenario.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Possess basic knowledge to conduct research on public policies based on the current needs of the nation and changing global scenario.	Applies research skills and methodology for policy analysis on public policies in order to ensure that policies are relevant to the current needs of the nation and changing global scenario.	Applies advance research skills and methodology for policy analysis on public policies in order to ensure that policies are relevant to the current needs of the nation and changing global	Produces policy & research papers on public policies in order to ensure that policies are relevant to the current needs of the nation and changing global scenario.
		scenario.	

Competency area: 1.2 Domain Expertise

Key Competency: 1.2.1 Mining Engineering Knowledge

Behavior Indicator: 1.2.1.1 Possess knowledge on mining methods, engineering principles, environmental management, sustainable mining development concepts & approaches and mineral production and value chain creation.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Possesses basic	Possesses adequate	Possesses advanced	Mentors subordinates
knowledge on	knowledge on mining	knowledge on mining	on mining methods,
mining methods,	methods, engineering	methods, engineering	engineering
engineering	principles,	principles,	principles,
principles,	environmental	environmental	environmental
environmental	management,	management,	management,
management,	sustainable mining	sustainable mining	sustainable mining
sustainable mining	development concepts	development	development
development	& approaches and	concepts &	concepts &
concepts &	mineral production and	approaches and	approaches and
approaches and	value chain creation	mineral production	mineral production
mineral production		and value chain	and value chain
and value chain		creation.	creation.
creation.			

Behavior Indicator: 1.2.1.2 Demonstrates knowledge on legal and regulatory aspects on Mining, Environment, Social & Resource Governance

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Demonstrates basic knowledge on legal and regulatory aspects on Mining, Environment, Social & resource governance	Demonstrates advanced knowledge on legal and regulatory aspects on Mining, Environment, Social & resource governance	Interprets provisions on legal and regulatory aspects on Mining, Environment, Social & resource governance	Interprets and explains rationale and basis of legal and regulatory aspects on Mining, Environment, Social & resource governance for sustainable development of mineral resources.

Key Competency: 1.2.2. Mine Planning & Design skills

Behavior Indicator:1.2.2.1 Understands and interprets geology and deposit attributes, resource information & geological controls and structures for mine planning & design

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)

	T			
Understands basic geology and deposit attributes, resource information & geological controls and structures for mine planning & design	Understands and interprets geology and deposit attributes, resource information & geological controls and structures for mine planning & design	Interprets and correlate geology and deposit attributes, resource information & geological controls and structures for mine planning & design	Guide and mentor subordinates in the application of geology and deposit attributes, resource information & geological controls and structures for best mine planning & design	
	.2.2.2. Ability to use mine p			
Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)	
Demonstrates basic knowledge on software available for mine planning & design	Ability to plan and design a mine using mine planning & optimization tools and software 2.2.3. Possess knowledge	Guide & mentor subordinates in the mine planning & using mine planning & optimization tools and software	Guide & mentor subordinates in the mine planning & using mine planning & optimization tools and software	
benavior indicator: 1.	.2.2.5. Possess kilowieuge	on mineral economics &	-	
Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)	
Possess basic knowledge on mineral economics & financial analysis	Possess good knowledge on mineral economics & financial analysis	Possess advanced knowledge on mineral economics & financial analysis and often advises the organization on sustainable development of mineral resources and economic viability of new mining projects.	Leads and mentors subordinates in identifying potential mining business opportunities and expansion based on the global mining scenarios.	
Key Competency: 1.2.3. Professionalism				
Behavior Indicator: 1.2.3.1 Demonstrates professionalism, maintains ethical conduct, integrity and confidentiality				
Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)	

Understands and	Guides	Guides	Makes appropriate
complies with	subordinates/colleague	subordinates/colleagu	decisions that
relevant rules and	s to maintain the	es to maintain the	ensures and
code of conduct of	standard of personal	standard of personal	encourages
organization	and professional	and professional	subordinates to act
maintaining	integrity through	integrity through	and maintain
professionalism in	display of	display of	personal and
service delivery.	professionalism.	professionalism.	professional integrity.

Behavior Indicator: 1.2.3.2 Applies specialized knowledge, skills & judgment in delivering the professional services

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Be able to apply specialized knowledge, skills & judgment during feasibility studies of smaller projects	Be able to apply specialized knowledge, skills & judgment during feasibility studies of medium projects with complexities	Be able to apply specialized knowledge, skills & judgment during feasibility studies of any scale or complexities	Guide & mentor subordinates in the feasibility study of mining projects

Competency Area: 1.3 Planning, Management & Coordination

Key Competency:1.3.1.Decision making skills

Behavior Indicator: 1.3.1.1 Analyses the situation and relevant information to draw conclusions and take decision objectively

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Demonstrates basic decision making skills to identify and deliberate the most appropriate options from many potential options	Demonstrates good knowledge & skills in analysis of complex situations by scrutinizing information from multiple sources for equitable decision making.	Makes appropriate decisions while encountering complex and differing alternatives.	Makes well-informed, effective, and timely decisions in highly complex situations.

Behavior Indicator: 1.3.1.2. Delegates roles, responsibilities and authorities for day-to-day functions of the organization.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)

		, ,	0 0
Able to take roles,	Demonstrates the	Ability to delegate	Execute clear role
responsibilities &	ability to delegate roles	roles &	delegation strategies
accountability, and	& responsibilities with	responsibilities and	plans, mechanisms
understand the	clear instructions for	provide clear	and guidance to
importance of role	effective functions of	guidance and support	ensure timely
delegation for	the organization.	in the delivery of the	delivery of the
effective functions		outcome.	functions of the
of the organization.			organization.
Key Competency: 1.3	.2 Project Management		
Behavior Indicator: 1	I.3.2.1 Mobilizes & manag	ges resources for the pro	oject towards achievin
desired results.			
Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Possess basic skills	Ability to mobilize and	Demonstrate ability to	Demonstrate ability
to plan, schedule,	manage resources	prioritize and mobilize	to prioritize the
allocate & manage	efficiently for better	resources with a	resources and its
resources to	results.	higher accuracy for	mobilization with
maximize efficiency		efficient use in	higher accuracy for
to achieve desired		achieving the	efficient use in
result		intended results.	achieving the
			intended results.
Behavior Indicator: 1	.3.2.2 Consult with the sta	keholders to have inclusiv	ve decision
Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Demonstrates the	Consults and discusses	Ability to lead the	Ability to lead and
ability to identify	matters with	consultation meetings	guide the
stakeholders and	stakeholders to	with stakeholders to	consultation
understands the	expedite and make	expedite and make	meetings with
importance of	informed decisions.	informed decisions.	stakeholders and
consultation in			deduce inclusive
	İ	1	1

Behavior Indicator: 1.3.2.3 Exhibit ability to identify risk & manage with appropriate tools and techniques.

decisions & outcomes

decision making

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)

Ability to use tools	Ability to identify,	Ability to identify,	Ability to guide and
and techniques for	evaluate and manage	evaluate and manage	mentor subordinates
risk identification,	moderate risk with	complex risk with	in identification,
evaluation and	adoption of	adoption of	evaluation and
management	appropriate tools and	appropriate tools and	management of risk.
	techniques.	techniques.	Ability to monitor,
			evaluate and review
			residual risk.
	2 Tages waste & Communication		

Key Competency: 1.3.3 Team work & Communication skills

Behavior Indicator: 1.3.3.1 Collaborates and build networks with the stakeholders for coordinated approach for common solutions

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Understands the importance of stakeholder identification, collaboration and management in achieving the desired solution.	Ability to collaborate and build networks with the stakeholders for proper coordination and collaboration.	Actively participates in collaboration and networking among stakeholders in achieving desired solutions.	Guide and lead in engaging stakeholders through collaboration and networking in achieving desired outcome.

Behavior Indicator :1.3.3.2 Establishes effective communication both within and outside the organization

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Demonstrates an ability to listen and process information and communicate effectively both within and outside the organization	Ability to communicate effectively both through verbal and written modes of communication to convey clear information, message and intentions etc.	Ability to segregate information and disseminate both within and outside organization through clear communication means and channels	Guide and mentors subordinates on communication management both within and outside organization
	and intentions etc.		

Behavior Indicator: 1.3.3.3 Exhibits the ability to work in team and motivate others through active interaction and participation

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)

Ability to lead a team and foster team building, interaction and participation	Ability to lead and guide multiple teams through frequent feedback to improve active interaction and participation.	Ability to monitor team work, recognize individual contribution and manage conflicts within the team. Guide and mentor and motivate team members for active interaction and participation in the
		team.
	and foster team building, interaction	and foster team building, interaction and participation guide multiple teams through frequent feedback to improve active interaction and

Table 7: Number of Behavioral Indicators for the Proficiency Levels of Key Role 2

Key	Role	2:	Mining	Regulator
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Competency Area: 2.1 Domain Expertise

Key Competency: 2.1.1 Legal & Regulatory knowledge

Behavior Indicator: 2.1.1.1. Demonstrates understanding of mining related laws and instruments for resource governance.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Possess basic knowledge on legal and regulatory requirements for mining, environment, social aspects & instruments for resource governance.	Exhibit clear understanding of the legal and regulatory provisions of the mining related laws, regulations and instruments for resource governance.	Exhibit comprehensive understanding of the mining related laws and able to interpret the legal and regulatory provisions of laws, regulations and instruments on mining, environment and social aspects in resource governance.	Ability to guide and mentor subordinates in the understanding and interpretation of the provisions of mining related laws and instruments for resource governance.

Behavior Indicator: 2.1.1.2. Demonstrates understanding on Inspectorial roles & responsibilities.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)

Exhibit	Exhibit clear	Ability to segregate and	Ability to lead and
understanding of the	understanding of the	distribute the	implement the plans and
individual roles and	individual roles and	inspectorate roles and	strategies in delivery of
responsibilities for	responsibilities for	responsibilities among	the inspectorate roles
inspection and	inspection and	the individuals & team	and responsibilities of
monitoring in the	monitoring in the	involved in inspection	organization effectively.
organization.	organization.	and monitoring.	

Behavior Indicator: 2.1.1.3. Provides inputs in the formulation, revision and amendment of mining related policies, laws, guidelines and standards

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Provides basic inputs in the formulation, revision and	Proactively inputs in the formulation, revision and	Draft & finalize the provisions of Mining related policies, laws,	Lead & guides subordinates in the formulation, revision and
amendment of Mining related policies, laws, guidelines and standards.	amendment of Mining related policies, laws, guidelines and standards.	guidelines and standards.	amendment of Mining related policies, laws, guidelines and standards.

Key Competency: 2.1.2 Mining Engineering Principles

Behavior Indicator: 2.1.2.1 Possesses knowledge on mining methods, engineering principles, environmental management, OHS, sustainable mining development concepts & approaches and mineral production and value chain creation.

Foundation (D4)	Intermediate (D2)	Experienced (D2)	Advanced (D1)
Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Possesses basic	Possesses adequate	Possesses advanced	Mentors subordinates on
knowledge on mining	knowledge on mining	knowledge on mining	mining methods,
methods,	methods, engineering	methods, engineering	engineering principles,
engineering	principles,	principles,	environmental
principles,	environmental	environmental	management,
environmental	management,	management,	sustainable mining
management,	sustainable mining	sustainable mining	development concepts &
sustainable mining	development concepts	development concepts	approaches and mineral
development	& approaches and	& approaches and	production and value
concepts &	mineral production	mineral production and	chain creation.
approaches and	and value chain	value chain creation.	
mineral production	creation		
and value chain			
creation.			

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)	
Demonstrates basic knowledge on mineral taxation instruments/regime and its application to specific minerals	Able to interpret and apply mineral taxation provisions appropriately in collecting fair share of mineral levies	Ability to interpret and explain the rationale behind the provisions of the mineral taxation policies and laws.	Guides & mentors subordinates on the application of correct mineral tax based on policies, laws and regulations with clear directives and guidelines	
Competency Area: 2.2 Compliance monitoring & Enforcement				
Key Competency: 2.2.1 Monitoring & Evaluation skills				

practices.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Ability to undertake monitoring and performance evaluation based on approved plans, mechanisms and tools.	Demonstrate the ability to plan, prepare and devise evaluation tools for monitoring and performance evaluation of mining operations to promote best mining practices.	Ability to review and evaluate the plans, mechanisms and tools for monitoring and performance evaluation to promote best mining practices.	Ability to guide and mentor subordinates in the planning, monitoring and performance evaluation of mining and related activities in promoting the best mining practices.

Behavior Indicator: 2.2.1.2. Conducts mining & environmental monitoring and provides evidencebased recommendations.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)	
Ability to conduct mining and environmental monitoring and provide evidence based measures to mitigate the issues.	Demonstrate an ability to analyze the monitoring plans and reports by providing evidence based recommendations to enhance compliance.	Ability to identify non-compliance issues, evaluate and provide scientific/appropriate recommendations based on the monitoring reports.	Reviews and evaluates the severity of non- compliance in the reports and provides required evidence based mitigation measures.	
Rehavior Indicator · 2 2 1 3 Exhibits emotional intelligence while handling situation				

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)

		, ,	•
Exhibits good level of emotional intelligence while handling normal situations	Exhibits high level of emotional intelligence while handling difficult situation	Exhibits exemplary level of emotional intelligence while handling complex situations	Exhibits and promotes art of emotional intelligence among colleagues and subordinates to handle varied levels of situations at work places.
Key Competency : 2.2.	2 Analytical & decision m	aking skills	
Behavior Indicator : 2.	2.2.1 Provides alternative	solutions to a problem	
Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Ability to identify and assess the problem and propose solution	Conducts adequate assessment of the problem and identify	Ability to assess and weigh alternatives solutions to a problem	Ability to guide others in the assessment of the problem and alternatives

and implement the best

solutions to resolve

problems.

with highest level of

complex problems.

analytical and decision

making skills in resolving

Behavior Indicator: 2.2.2.2 Ability to analyze and interpret information for decision making.

optimal solutions

based on sound

judgment of the

alternatives.

and alternatives

based on sound

judgment.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Ability to understand the basic information and carry out basis analysis and interpretation for further actions and proper decision	Ability to analyze and interpret various information and provide recommendations and solutions for sound decision making.	Demonstrate ability to analyze and interpret complex information with higher level of discerning consultation skills to resolve complex issues and decide the	Able to guide and mentor subordinates in information analysis, interpretation and decision making with effective consultation and decision making
making.		solutions.	processes.

Behavior Indicator: 2.2.2.3 Delegates roles, responsibilities and authorities for day-to-day functions of the organization.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)

		, ,	J
Able to take roles, responsibilities & accountability, and understand the importance of role delegation for effective functions of the organization.	Demonstrates the ability to delegate roles & responsibilities with clear instructions for effective functions of the organization.	Ability to delegate roles & responsibilities and provide clear guidance and support in the delivery of the outcome.	Execute clear role delegation strategies, plans, mechanisms and guidance to ensure timely delivery of the functions of the organization.
Key Competency : 2.2.	3 Accountability & comm	itment	
Behavior Indicator: 2.2	.3.1. Takes responsibility	for own work, decisions and	l actions.
Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Ability to take responsibility for own work, decisions and actions based on the individual roles and responsibilities under the guidance and supervision.	Ability to take responsibility for own work, actions and decisions including ownership of problems and issues with clear understanding of his/her roles, responsibilities, powers and accountability.	Ability to take responsibility for own work, actions and decisions including ownership of problems and issues in line with the organizational values without guidance and supervision.	Ability to lead and promote a culture of taking responsibilities, accountability and commitment at the individual and organizational levels.
	.3.2. Demonstrates comm	itment and dedication to th	ne assigned task to achiev
expected results.	Into was a dista (D2)	Figure 1 (D2)	Advanced (D4)
Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Demonstrates commitment and dedication to the	Ability to demonstrate higher level of	Exhibits exemplary commitment and	Displays highest level of commitment and

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Demonstrates commitment and dedication to the assigned task to achieve expected results.	Ability to demonstrate higher level of commitment and dedication to the assigned task to achieve expected results.	Exhibits exemplary commitment and dedication to the assigned task to achieve expected results without fear and prejudices.	Displays highest level of commitment and dedication to the assigned task and mentors subordinates with motivation & rewards/pills to achieve expected results.
Behavior Indicator: 2.	2.3.3. Ability to respond ar	nd attend to the stakeholder	r needs/concerns.

Intermediate (P3)

Experienced (P2)

Foundation (P4)

Advanced (P1)

Ability to respond	Ability to understand	Ability to identify and	Ability to guide and
and attend to	the stakeholder	understand the	mentor subordinates in
stakeholder	needs/concerns and	stakeholder	addressing the
needs/concerns	responds appropriately	needs/concerns and	stakeholder
under the	with sound basis and	provide appropriate	needs/concerns with
supervision and	judgment.	measures and solutions	commitment and
guidance.		to address the needs	dedication.
		and concerns.	

Competency Area: 2.3 Leadership and Management

Key Competency: 2.3.1. Professionalism

Behavior Indicator: 2.3.1.1. Demonstrates and promotes professional ethics & code of conducts to enhance compliance and enforcement culture.

Foundation (P4)	Intermediate (P3)		Experienced (P2)	Advanced (P1)
Understands and complies with relevant rules and code of conduct of organization maintaining professionalism in service delivery.	Guides subordinates/colleagu es to maintain the standard of personal and professional integrity through display of professionalism.	maintain th	es/colleagues to ne standard of nd professional rough display of alism.	Makes appropriate decisions that ensures and encourages subordinates to act and maintain personal and professional integrity while enforcing mining laws.

Behavior Indicator: 2.3.1.2 Applies specialized knowledge, skills & judgment in delivering the professional services.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Be able to apply specialized knowledge, skills & judgment during implementation of mining &environmental management plans, and OHS standards in the mine	Be able to apply specialized knowledge, skills & judgment during implementation of mining & environmental management plans, and OHS standards in the mine	Be able to apply specialized knowledge, skills & judgment during implementation of mining &environmental management plans, and OHS standards in the mine	Guide & mentor subordinates in the delivery of professional services through accurate implementation of mining &environmental management plans,

			and OHS standards
			in the mine
Key Competency: 2.3.2	2. Communication skills		
Behavior Indicator: 2.3 effectively	3.2.1. Demonstrates an ak	pility to listen, process info	rmation and communicate
Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Demonstrates an	Ability to collaborate	Exhibits ability to	Considers different
ability to listen and	and resolve any issues	respect differences of opinion and addresses	views/suggestions and
communicate effectively with clear	arising from interaction for	disagreements	encourages to express the concerns, issues and
flow of information	conducive working	objectively and	criticisms for
110W Of Information	environments	professionally to achieve	enhancement of
	Chivinoninients	desired outcomes	communication plans
			and strategies in the
			organization
Behavior Indicator: 2.3	I 3.2.2 Exhibits positive attit	ude and receptiveness to er	nsure effective exchange
of views and knowledg	•	•	<u> </u>
Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Possesses a will to	Exhibits an	Demonstrate and ability	Leads and facilitate in
listen and accept	understanding of	to listen, accept and	creating room for
ideas and suggestions	verbal and non-verbal	incorporate the views	exhibition of positive
and is optimistic	communication	and concerns with	attitude and
about the situations	strategies to pitch	flexibility and rooms for	receptiveness to ensure
and surroundings	ideas or express	improvement	effective exchange of
	views.		views and knowledge
Behavior Indicator: 2.3	3.2.3 Maintains proactive a	and timely communications	with the stakeholders.
Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)

Demonstrates an ability to listen and process information and communicate effectively with the stakeholders	Ability to communicate effectively both through verbal and written modes of communication to convey clear information, message	Ability to segregate information and disseminate to the relevant stakeholders through clear communication means and channels	Guide and mentors subordinates on communication management with the stakeholders for creating conducive working environment
	and intentions etc.		

Key Competency: 2.3.3. Conflict management

Behavior Indicator: 2.3.3.1. Demonstrates an ability to anticipate & negotiate possible conflicts with effective conflict resolution tools and techniques.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Demonstrates an ability to anticipate problems, prioritize and apply relevant mitigation methods with sound judgment for resolution of problem/conflict.	Ability to anticipate, analyze and prioritize possible conflicts with appropriate strategy and tools to resolve or mediate conflicts	Ability to anticipate, analyze and prioritize critical problems by applying most relevant mediation methods to mitigate conflict/problems for better outcomes.	Guide and mentor subordinates in the application of conflict resolution tools & techniques for meaningful outcomes.

Behavior Indicator: 2.3.3.2. Proactively liaises with stakeholders to solve problems, encourages participation and acknowledges different views.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Understands the importance of stakeholder identification, collaboration and management in achieving the desired solution.	Ability to collaborate and build networks with the stakeholders for proper coordination and collaboration.	Actively participates in collaboration and networking among stakeholders in achieving desired solutions.	Guide and leads in engaging stakeholders through collaboration and networking in achieving desired outcome.

Table 8: Number of Behavioral Indicators for the Proficiency Levels of Key Role 3

Key Role 3 : Technical Expert	
Competency Area: 3.1 Domain Expertise	
Key Competency: 3.1.1 Mining Engineering Knowledge	

Sustainable Milning Dev	elopment approaches		
Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Understands basic knowledge in the field of Mining Engineering & Sustainable Mining Development approaches	Demonstrates good knowledge in the field of Mining Engineering & Sustainable Mining Development approaches	Demonstrates indepth knowledge in the field of Mining Engineering & Sustainable Mining Development approaches	Demonstrates advance knowledge in the field of Mining Engineering & provides/initiates policy dialogue on Sustainable Mining Development plan and strategies for development of mining sector.
Behavior Indicator: 3.1. Foundation (P4)	1.2. Possess knowledge o Intermediate (P3)	n mining operations and Experienced (P2)	d optimization techniques. Advanced (P1)
Possesses basic knowledge on mining methods, mine operation and optimization techniques	Possesses clear knowledge on mining methods, mine operation and optimization techniques	Possesses advanced knowledge on mining methods, mine operation and optimization techniques	Guide & mentors subordinates on mining methods selection, mine operation and optimization techniques for efficient mineral recovery
	1.3. Demonstrates knowled on of mineral developmen	=	=
Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Demonstrates basic knowledge on mineral resource governance tools for implementation of mineral development policy and legislations	Demonstrates sound knowledge on mineral resource governance tools for effective implementation of mineral development policy and legislations	Demonstrates an ability to propose and recommend plan of actions/resource governance tools for effective implementation of mining legislations to achieve the policy objectives	Leads and provides recommendations on different mineral resource governance tools and adopt best practices for effective implementation of mineral development policy and legislations

Behavior Indicator : 3.1.2.1 Ability to interpret and explain all the provisions of the mining laws			
Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Possesses basic knowledge on all the provisions of mining laws	Possesses good knowledge and ability to explain all the provisions of the mining laws	Possesses in-depth knowledge and ability to explain all the provisions of the mining laws	Ability to guide and mentor subordinates in the understanding and interpretation of the provisions of mining related laws.

Behavior Indicator: 3.1.2.2. Provides inputs in the formulation, revision and amendment of mining related policies, laws, guidelines and standards.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
revision and amendment of Mining	Proactively inputs in the formulation, revision and amendment of Mining related policies, laws, guidelines and standards.	Draft & finalize the provisions of Mining related policies, laws, guidelines and standards.	Lead & guides subordinates in the formulation, revision and amendment of Mining related policies, laws, guidelines and standards.

Behavior Indicator: 3.1.2.3. Ability to apply legal and regulatory measures for effective implementation of plans and policies.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Possess basic knowledge and demonstrates ability to to apply legal and regulatory measures	Possess good knowledge and ability to identify, analyze and propose appropriate measures for effective implementation of plans & policies	Ability to interpret and explain the rationale behind the application of appropriate and relevant provisions of the legal and regulatory measures in fulfilling the objectives of the policies and laws.	Guides & mentors subordinates on the application of correct provisions of mining and regulatory measures with clear directives and guidelines.

Key Competency: 3.1.3 Ability to continue learning

Behavior Indicator: 3.1.3.1 1. Ability to identify the knowledge & skill gaps and needs for continuous learning.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Ability to identify the knowledge and skill gaps and needs for the current roles and responsibilities	Ability to clearly recognize the current and future capacity needs of the occupation and propose capacity development plans	Exhibits in-depth understanding of technological advancement in the Mining Engineering fields and propose future capacity needs of the occupation and propose appropriate professional development plans & strategies	Leads & mentors subordinates/colleagues to enhance their technical competence and on-going professional development through active participations in training and knowledge dissemination programs.

Behavior Indicator: 3.1.3.2 Continuously pursues personal learning and development opportunities to enhance professional growth and development.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Possess an ability to continuously learn and explore opportunities to enhance professional growth and development	Ability to proactively pursue personal learning and development opportunities to enhance professional growth and development.	Ability to explore and recommend education and development opportunities for individuals and colleagues to enhance professional growth and learning opportunities.	Leads and mentors subordinates on the professional development front and creates opportunities for enhancing professional growth and development of the organization.

Behavior Indicator: 3.1.3.3 Demonstrates curiosity for learning latest technologies and best practices.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)

Displays keen interest	Demonstrates curiosity	Exhibits eccentricity	Exhibits tech savviness and
and learning aptitude	for learning and keeps	for learning &	leads in promoting those
on latest technologies	up-to-date with the	proposes to adopt	technologies for
and best practices.	latest technologies and	those evolving	improvement of business
	best practices.	technologies and	opportunities.
		best practices in line	
		with technological	
		advancement in the	
		related fields.	

Competency Area: 3.2 Research & Development

Key Competency: 3.2.1 Applied Research Skills

Behavior Indicator: 3.2.1.1 Identifies problems and opportunities and develops appropriate research methodologies.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Learn to identify problems and opportunities for appropriate applied research.	Identifies problem and explore opportunities to develop appropriate applied research methodologies	Identifies critical problem, and explore opportunities to develop appropriate research methodologies and their implementation	Mentor the subordinates in Identification of problems, and provide guidance in developing appropriate research methodologies and their implementation

Behavior Indicator: 3.2.1.2. Ability to Interpret research findings using appropriate methods for evidence-based decision making.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Ability to process and synthesize information on research findings and recommend for evidence based decisions.	Demonstrate skills to process, analyze and interpret the research findings with field applications for evidence-based decision making.	Exhibits sound knowledge and skills to interpret research findings using conceptual, critical, and strategic and systems thinking skills for evidence-based decision making.	Demonstrates & mentors the subordinates in interpretation of research findings, applications & adoptions of such practices based on the field trials and data.

Behavior Indicator: 3.2.1.3 Ability to analyze mineral commodity demand and opportunities in the global market to promote economic development.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Demonstrates ability to identify mineral commodity demand and opportunities.	Ability to identify & analyze mineral commodity demand, supply and pricing in the domestic and global market potential to promote economic development.	Ability to identify & analyze mineral commodity demand, supply, gaps, and pricing in the domestic and global market and recommend for appropriate interventions to promote economic development.	Guide & mentor the subordinates/colleagues in analyzing mineral commodity demand and opportunities in the global market to promote economic development.

Key Competency: 3.2.2. Data collection & Analytical skills

Behavior Indicator: 3.2.2.1. Ability to conduct quantitative and qualitative analysis using appropriate methods.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Ability to learn & conduct quantitative and qualitative analysis of data using appropriate methods.	Understands and Demonstrates good knowledge of statistical techniques and tools for analytical purposes.	Effectively applies statistical techniques and shows proficient use of statistical tools to analyze data for evidence-based decision making	Conducts in-depth data analysis, adequately interprets quantitative and qualitative statistical results using appropriate methods.

Behavior Indicator: 3.2.2.2. Ability to use required data analytical tools and techniques.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Demonstrate ability to learn to use required data analytical tools and techniques.	Understands and Demonstrates good knowledge of statistical techniques and tools for analytical purposes.	Applies advance statistical techniques to generate statistical results using appropriate tools and techniques	Leads, provides and recommends innovative ideas and best statistical practices to improve analytical skills.

Behavior Indicator: 3.2.3.1 Demonstrates knowledge and skills on ICT tools, technologies and software.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Demonstrates basic	Possesses higher level	Possesses higher	Demonstrates advanced
knowledge and skills	of knowledge and skills	level of knowledge	knowledge and skills on
on ICT tools,	on application of	and skills on	ICT tools, technologies and
technologies and	digital tools in research	application of digital	software for research &
softwares.	and development	tools in research	development
		and development	

Behavior Indicator: 3.2.3.2. Ability to recognize digital transformation & leveraging its opportunities for improved service delivery

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Understands latest digital tools and	Understand and demonstrate the use	Demonstrate ability to recognize digital	Leads and guide peers & subordinates in adoption
technologies for	of service delivery	transformation &	of digital tools &
improved service delivery	automation systems for efficient	leveraging its opportunities for	technologies and leveraging its
,	management of	improved service	opportunities for
	mineral resources.	delivery	improved service delivery

Competency Area: 3.3 Training & Mentoring

Key Competency: 3.3.1. Communication skills

Behavior Indicator: 3.3.1.1. Ability to communicate with audiences through appropriate channels

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Ability to respond to the concerns through written, verbal or electronic communication stating the facts clearly	Ability to engage in conversation with audiences using appropriate communications modes and methods to achieve desired outcomes	Ability to shares, disseminates & connects with people on information through clear oral, written, and interpersonal communication skills to maintain strong public	Considers different views/suggestion and facilitate to shares, disseminates & connects with people on information through clear oral, written, and interpersonal communication skills to maintain strong public relations on all platforms

		, .	o o
		relations on all	
		platforms	
Key Competency: 3.3.2	. Professional developme	nt skills	
Behavior Indicator: 3	.3.2.1. Ability to carry o	ut succession plannin	g for mining professional's
continuity and effective		į, i	0 - 0 p
•	,	- 1/20)	1/04)
Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Exhibits curiosity in	Possess an ability to	Possess advanced	Clearly recognizes the
professional	carry out succession	knowledge & skills	current
development for	planning for mining	to carry out	and future capacity needs
mining industry	professionals'	succession planning	of staff and provide
	continuity and	for mining sector	opportunities and enabling
	effective service		environment for
	delivery		professional development.
Behavior Indicator: 3.3	.2.2 Ability to recognize ar	nd promote technical ca	pacity in an organization.
Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Learn to identify	Possess an ability to	Develops and	Leads and facilitates to
technical manpower	use appropriate	implements	promote technical capacity
required for	training and instruction	relevant training	in an organization.
promoting scientific	approaches and tools	and professional	
and sustainable	to effectively deliver	development	
mining development.	the capacity building	programs to	
	programs	enhance technical	

Behavior Indicator: 3.3.2.3. Ability to develop training plans, modules and curriculum for mining professionals.

sector.

capacities across the

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Ability to assist in developing training plans, modules and curriculum for mining	Possess adequate knowledge and ability to develop training plans, modules and	Possess advanced knowledge and ability to develop training plans,	Guides and mentors subordinates in the development of training plans, modules and
professionals	curriculum for mining professionals	modules and	curriculum for mining professionals

		curriculum for mining professionals	
Key Competency: 3.3.3. Networking skills			

competency: 3.3.3. Networking skills

Behavior Indicator: 3.3.3.1. Ability to build strong network with stakeholders for a coordinated approach in knowledge sharing.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Assists and learns to collaborate and build strong networks with stakeholders for coordinated approach in knowledge sharing.	Demonstrate good skill to collaborate and build strong networks with stakeholders for coordinated approach in knowledge sharing.	Demonstrate adequate skill to collaborate and build strong networks with stakeholders for coordinated approach in knowledge sharing.	Guide and leads in building strong networks with stakeholders through collaboration and networking for coordinated approach in knowledge sharing.

Behavior Indicator: 3.3.3.2. Creates conducive working culture that promotes teamwork, coordination and collaboration.

Foundation (P4)	Intermediate (P3)	Experienced (P2)	Advanced (P1)
Ability to cooperate and work in a team through active interaction, participation and collaboration.	Ability to create conducive working culture that promotes team building, coordination and collaboration	Ability to lead and create conducive working culture that promotes team building, coordination and collaboration through frequent feedback to improve active interaction and participation.	Monitors and recognizes individual contribution and manages conflicts within the team to create a conducive working culture that promotes teamwork, coordination and collaboration.

2.7 **Training Needs Analysis**

The Training Needs is the difference between desired capability and current capability. The Training Needs Analysis (TNA) 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 Mining Engineer 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 64 behavioral indicators of different proficiency levels on Likert Scale of "Competent" and "Not Competent" followed by open ended questions asking the likely reasons for 'Not Competent" and suggest 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 Foundation Proficiency Level (P4)

Table 9: Training Need Analysis for the Foundation Level (P4) Proficiency

Key Role 1: Mineral Resource Developer				
Key Competenc ies	Description of Proficiency Levels (PL)	Performance (competent/ Not competent)	Likely reasons for performance gap	Capacity Development Intervention
1.1.1 Knowledge on Policy & law-making process	Demonstrate basic understanding of protocols for policy formulation and approval process	Not Competent	Lack of knowledge and exposure	In-house workshop and training,
	Exhibits basic understanding of regulatory impact assessment, law drafting instructions, rules and procedures, etc. of the country	Not Competent	Lack of knowledge and exposure	In-country training/workshop on Mining legislation and other related laws for mining sector, e- learning
1.1.2. Drafting skills	Provides basic inputs in the formulation, revision and amendment of Mining related policies, laws, guidelines and standards.	Not Competent	Lack of a systematic and practical training program for beginners to draft legislation in a prescribed format.	Peer mentoring, OJT, Workshops/seminar s

	Exhibits basic knowledge and skills on policy analysis tools.	Not Competent	Lack of adequate knowledge and exposure	In-country and ex- country training/workshop Peer mentoring
1.1.3. Research and Analytical Skills	Demonstrate basic understanding of international standards and best practices in policies & law making processes	Not Competent	Lack of adequate knowledge and exposure	ex-country/in- country training and workshop, e- learning, study tours with case studies
	Possess basic knowledge to conduct research on public policies based on the current needs of the nation and changing global scenario.	Not Competent	Inexperienced as a beginner and lack of knowledge on research methodologies	Workshop, e- learning, OJT and training and workshop on enhancing research skill
1.2.1 Mining Engineering Knowledge	Possesses basic knowledge on mining methods, engineering principles, environmental management, sustainable mining development concepts & approaches and mineral production and value chain creation.	Competent	NA	NA
	Demonstrates basic knowledge on legal and regulatory aspects on Mining, Environment, Social & resource governance	Competent	NA	NA
1.2.2. Mine Planning and Design Skills	Understands basic geology and deposit attributes, resource information & geological controls and structures for	Not Competent	Lack of adequate knowledge and experience	In-country seminars/workshop s and ex-country training on mine planning and design

	mine planning & design Demonstrates basic knowledge on software available for mine planning & design	Not Competent	Lack of resources, lack of access to the tools and training	Ex-country training/ e-Learning on mine planning software
	Possess basic knowledge on mineral economics & financial analysis	Not Competent	Lack of adequate knowledge and exposure, no knowledge on mineral market in the region, not initiated any mining projects based on rudimentary mining knowledge.	Ex-country study tour, workshops and seminars, e- learning, short courses
1.2.3. Professiona lism	Understands and complies with relevant rules and code of conduct of organization maintaining professionalism in service delivery.	Not Competent	Lack of job experience,	In-country seminars and workshops on ethical conduct and integrity
	Be able to apply specialized knowledge, skills & judgment during feasibility studies of smaller projects	Not Competent	Inadequate knowledge and experience	Peer mentoring/ in-house seminar

1.3.1.Decisi on making skills	Demonstrates basic decision making skills to identify and deliberate the most appropriate options from many potential options	Not Competent	Inadequate leadership skills, knowledge and experience	Peer mentoring, job rotation, OJT
	Able to take roles, responsibilities & accountability, and understand the importance of role delegation for effective functions of the organization.	Not Competent	Inadequate leadership skills	In-country and ex- country training on leadership skills
1.3.2. Project Manageme nt Skills	Possess basic skills to plan, schedule, allocate & manage resources to maximize efficiency to achieve desired result	Not Competent	Inexperience and inadequate management skills	In-country/ Ex- country seminars and training on project management
	Demonstrates the ability to identify stakeholders and understands the importance of consultation in decision making	Not Competent	Lack of job experience, communication skills and management skills	
	Ability to use tools and techniques for risk identification, evaluation and management	Not Competent	Lack of experience and management skills,	
1.3.3. Team work & Communic ation skills	Understands the importance of stakeholder identification, collaboration and management in	Not Competent	Lack of communication skills, Lack of enabling working environment	Ex-country exposure and training, Incountry Standard Induction Program on Organization's Vision, Mission,

	achieving the desired solution.			Mandates, Functions, Policies, Plans, Programs
	Demonstrates an ability to listen and process information and communicate effectively both within and outside the organization	Not Competent	Lack of communication skills, Lack of enabling working environment	
	Ability to cooperate and work in a team through active interaction, participation and collaboration.	Not Competent	Lack of experience and communication skills	
Key Role 2. Mining Regulator				
Key Competenc ies	Description of Proficiency Levels (PL)	Performance (competent / Not competent)	Likely reasons for performance gap	Capacity Development Intervention
Competenc	•	(competent / Not	for performance	Development

	monitoring in the organization Provides basic inputs in the formulation, revision and amendment of Mining related policies, laws,	Not Competent	Lack of experience, knowledge and exposure	In-house workshop, mentoring and training
	guidelines and standards			
2.1.2. Mining Engineering Principles	Possesses basic knowledge on mining methods, engineering principles, environmental management, sustainable mining development concepts & approaches and mineral production and value chain creation.	Competent	NA	NA
	Demonstrates basic knowledge on mineral taxation instruments/regime and its application to specific minerals	Not Competent	Lack of adequate knowledge and exposure, no knowledge on mineral market in the region, not initiated any mining projects based on rudimentary mining knowledge.	Ex-country study tour, workshops and seminars, e-learning, short courses
2.2.1. Monitoring and	Ability to undertake monitoring and performance evaluation based on	Competent	NA	NA

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Evaluation Skills	approved plans, mechanisms and tools			
	Ability to conduct mining and environmental monitoring and provide evidence based measures to mitigate the issues.	Not Competent	Lack of experience and knowledge	OJT, in-country/ex- country workshops, seminars and study tour on mine monitoring and evaluation.
	Exhibits good level of emotional intelligence while handling normal situation	Competent		
2.2.2. Analytical and Decision Making	Ability to identify and assess the problem and propose solution and alternatives based on sound judgment.	Not Competent	Lack of job experience and job rotation.	OJT, seminar and workshops on design thinking
Skills	Ability to understand the basic information and carry out basis analysis and interpretation for further actions and proper decision making.	Not Competent	Lack of experience and exposure	Standard Induction Program on Organization's Vision, Mission, Mandates, Functions, Policies, Plans, Programs including National and International Legislations, ex- country exposure, peer mentoring
	Able to take roles, responsibilities& accountability, and understand the importance of role delegation for effective functions of the organization.	Competent	NA	NA

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2.2.3. Accountabi lity & Commitme nt	Ability to take responsibility for own work, decisions and actions based on the individual roles and responsibilities under the guidance and supervision.	Competent	NA	NA
	Demonstrates commitment and dedication to the assigned task to achieve expected results	Competent	NA	NA
	Ability to respond and attend to stakeholder needs/concerns under the supervision and guidance	Not Competent	Lack of adequate experience and exposure	Peer mentoring, workshops and attending consultation meeting
2.3.1. Professiona lism	Understands and complies with relevant rules and code of conduct of organization maintaining professionalism in service delivery	Competent	NA	NA
	Be able to apply specialized knowledge, skills & judgment during implementation of mining &environmental management plans, and OHS standards in the mine	Not Competent	1.Lack of enabling working environment, knowledge & experience 2. Nature of job	1. Mentoring by peers 2. In-country workshops on integrity

2.3.2. Communic ation skills	Demonstrates an ability to listen and communicate effectively with clear flow of information	Competent	NA	NA
	Possesses a will to listen and accept ideas and suggestions and is optimistic about the situations and surroundings	Competent	NA	NA
	Demonstrates an ability to listen and process information and communicate effectively with the stakeholders	Competent	NA	NA
2.3.3. Conflict Manageme nt	Demonstrates an ability to anticipate problems, prioritize and apply relevant mitigation method with sound judgment for resolution of problem/conflict.	Not Competent	Inadequate situational assessment and conflict management skills.	Training on conflict management skills
	Understands the importance of stakeholder identification, collaboration and management in achieving the desired solution	Competent	NA	NA
Key Role 3. Technical Expert				
Key Competencie s	Description of Proficiency Levels (PL)	Performance (competent/ Not competent)	Likely reasons for performance gap	Capacity Development Intervention

3.1.1. Mining Engineering Knowledge	Understands basic knowledge in the field of Mining Engineering & Sustainable Mining Development approaches	Competent	NA	NA
	Possesses basic knowledge on mining methods, mine operation and optimization techniques	Competent	NA	NA
	Demonstrates basic knowledge on mineral resource governance tools for implementation of mineral development policy and legislations	Competent	NA	NA
3.1.2. Legal and Regulatory Knowledge	Learn to interpret and explain the rationales and basis of all the provisions of the mining laws and regulations	Not Competent	Lack of knowledge and exposure	Training, workshops and mentoring.
	Provides basic inputs in the formulation, revision and amendment of Mining related policies, laws, guidelines and standards	Not Competent	Lack of experience, knowledge and exposure	In-house workshop and training
	Possess basic knowledge and demonstrates ability to to apply legal and regulatory measures	Not Competent	Lack of knowledge and exposure	In-country training/workshop on Mining legislation and other related laws for mining sector, e- learning

3.1.3.Abilit y to continue learning	Ability to identify the knowledge and skill gaps and needs for the current roles and responsibilities	Not Competent	Freshly inducted into the job and not able to recognize the current & future skills need for the job	Orientation and role play in different job roles. Mentoring. Job Rotation
	Possess an ability to continuously learn and explore opportunities to enhance professional growth and development	Competent	NA	NA
	Displays keen interest and learning aptitude on latest technologies and best practices	Competent	NA	NA
3.2.1. Applied Research Skills	Learn to identify problems and opportunities for appropriate applied research.	Not Competent	1. Inadequate knowledge and skills on research. 2. Lack of dedicated	In-country/Ex- country Training on Research Methodology. Training on Mining
synthesize information research find and recommend			research division 3. Lack of resource	Statistics and Data Analysis.
	Demonstrates ability to identify mineral commodity demand and opportunities			
3.2.2. Data Collection and Analytical Skills	Ability to learn & conduct quantitative and qualitative analysis of data using appropriate methods	Not Competent	Inadequate knowledge, skills and resources.	Training on Mining Statistics and Data Analysis.

3.2.3. ICT and Communic ation Skills	Demonstrate ability to learn to use required data analytical tools and techniques. Demonstrates basic knowledge and skills on ICT tools, technologies and software	Not Competent Competent	Inadequate skills to utilize analytical tools techniques, software	Training on statistical tools and software
	Understands latest digital tools and technologies for improved service delivery	Not Competent	Lack of knowledge on latest technologies/res ources	Training, e-Learning and workshop
3.3.1.Com munication skills	Ability to respond to the concerns through written, verbal or electronic communication stating the facts clearly	Competent	NA	NA
3.3.2. Professiona I Developme nt Skills	Exhibits curiosity in professional development for mining industry	Not Competent	Inadequate professional development skills.	Ex-country exposure and Training on Professional development Skill
3	Learn to identify technical manpower required for promoting scientific and sustainable mining development.	Competent	NA	NA
	Ability to assist in developing training plans, modules and curriculum for mining professionals	Not Competent	Lack of experience, knowledge and exposure	Workshop-learning, study tour and OJT

3.3.3. Assists and learns to OJT, Consultation Lack of Networking meeting/Workshop collaborate and build and experience Skills strong network with Not and exposure Seminars/Webinar stakeholders for Competent coordinated approach in knowledge sharing

Competent

NA

NA

2.7.2 Training Needs Assessment at Intermediate Proficiency Level (P3)

active

and

Ability to cooperate and work in a team

through

interaction, participation

collaboration

Table 10: Training Need Analysis for the Intermediate Level (P3) Proficiency

Key Role 1: Minera	al Resource Developer			
Key Competencies	Description of Proficiency Levels (PL)	Performance (competent/No t competent)	Likely reasons for performance gap	Capacity Development intervention
1.1.1 Knowledge on Policy & law- making process	Demonstrate good understanding of protocols for policy formulation and approval process Exhibits good understanding of regulatory impact assessment, law drafting instructions, rules and procedures, etc. of the country	Not Competent	Lack of job experience and exposure	Mentoring through trainings and workshops
1.1.2. Drafting skills	Proactively inputs in the formulation, revision and amendment of Mining related policies, laws,	Not Competent	Lack of a systematic and practical training program for beginners to	Training on a systematic and practical training program for beginners to draft

	guidelines and standards Exhibit good knowledge and skills		draft submissions in a prescribed format.	submissions in a prescribed format
	and identification of various policy analysis tools			
1.1.3 Research & Analytical skills	Demonstrate advanced understanding of international standards and best practices in policies & law making process Applies research skills and methodology for policy analysis on public policies in order to ensure that policies are relevant to the current needs of the nation and changing global scenario.	Not Competent	1. Inadequate knowledge and skills. 2. Lack of dedicated research division.	1. Short Term Training on Environmental Statistics and Data Analysis. 2. Long term Master's Degree In Mining related field 3. Training on development of analytical skills
2.1 Mining Engineering Knowledge	Possesses adequate knowledge on mining methods, engineering principles, environmental management, sustainable mining development concepts & approaches and mineral production and value chain creation	Not Competent	1. Lack of accurate, complete and up-to- date information on best practices and new emerging mining challenges including resources. 2. General ME degree does not	International Workshop on new and emerging mining issues and best practices.

1.2.2. Mine Planning & Design skills	Demonstrates advanced knowledge on legal and regulatory aspects on Mining, Environment, Social & resource governance Understands and interprets geology and deposit attributes, resource information & geological controls and structures for mine planning &	Not Competent	suffice the needs of the organization. 1. Inadequate knowledge and learning platforms on mining geology for mine planning and design	Training on Mine Geology & Geophysics for mine planning, design & operations
	design Ability to plan and design a mine using mine planning & optimization tools and software Possess good knowledge on mineral economics & financial analysis	Not Competent	1. Inadequate knowledge on mine planning and design as a beginner. 2. Lack of resources	Long term Master's Degree on the subject and short term Ex- country or in- country training on mine planning and design along with training on associated software.
1.2.3. Professionalis m	Guides subordinates/collea gues to maintain the standard of personal and professional integrity through display of professionalism. Be able to apply specialized knowledge, skills & judgment during feasibility studies of medium projects with complexities	Competent	NA	NA

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1.3.1.Decision	Demonstrates good		1. Inadequate	1. Workshop on
making skills	knowledge & skills		skills on	Importance and
	in analysis of		conducting	Protocols of
	complex situation		stakeholder	Stakeholder
	by scrutinizing		consultation.	Consultation.
	information from			
	multiple source for		2. Inadequate	2. Training on
	equitable decision		situational	Situational
	making.	Not Competent	assessment	Analysis.
	Demonstrates the		skills.	7 (Tary 515).
	ability to delegate		JKIII3.	
	roles &			
	responsibilities with			
	clear instructions for			
	effective functions			
	of the organization			
1.3.2. Project	Ability to mobilize		1. Inadequate	In-country/Ex-
Management	and manage		knowledge and	country Training
	resources efficiently		skills to develop	on Project
	for better result.		effective project	Management.
		Not Competent	proposals.	
		·	2. Inadequate	
			knowledge to	
			access/mobilize	
			resources.	
	Consults and discuss			
	matters with			
	stakeholders to	Competent	NA	NA
	expedite and make	competent	IVA	IVA
	informed decisions.			
	Ability to identify,		In adequate	Ev country
	evaluate and		•	Ex-country tailored made
			knowledge on	
	manage moderate	Not Competent	risk	Training on Mining
	risk with adoption of	·	management	Project
	appropriate tools		strategies for	Management
	and techniques.		mining projects	
1.3.3 Team	Ability to		1. Inadequate	1. Standard
work &	collaborate and		knowledge on	Induction Program
Communicatio	build networks with		organizational	on Organization's
n skills	the stakeholders for		plans and	Vision, Mission,
	proper coordination	Not Competent	programs.	Mandates,
	and collaboration	-	2. Inadequate	2. Mentoring from
			skill on aligning	peers
			organizational	
			plans and	
	1		p.a.i.s aira	l

			programs to national goals	
	Ability to communicate effectively both through verbal and written modes of communication to convey clear information, message and intentions etc.	Competent	NA	NA
	Ability to lead a team and foster team building, interaction and participation	Not Competent	1. Lack of inadequate team building task and exposure with external stakeholders 2. Lack of enabling working environment	1. In-country Team Building workshops & Design Thinking workshops 2. Job Rotation & Role Play
Key Role 2: Mining		D. (191-1	0
Key Competencies	Description of Proficiency Levels (PL)	Performance (competent/No t competent)	Likely reasons for performance gap	Capacity Development intervention
2.1.1. Legal & Regulatory knowledge	Exhibit clear understanding of the legal and regulatory provisions of the mining related laws, regulations and instruments for	Not Competent	1. Lack of formal dissemination of national and international mining and environment related laws/instrument	Standard Induction Program on Organization's Vision, Mission, Mandates, Functions, Policies, Plans, Programs including National

	resource governance.		s. 2. No system of job rotation.	and International Legislations
	Exhibit clear understanding of the individual roles and responsibilities for inspection and monitoring in the organization	Competent	NA	NA
	Proactively inputs in the formulation, revision and amendment of Mining related policies, laws, guidelines and standards	Competent	NA	NA
2.1.2 Mining Engineering Principles	Possesses adequate knowledge on mining methods, engineering principles, environmental management, sustainable mining development concepts & approaches and mineral production and value chain creation	Not Competent	1. General ME degree does not suffice the needs of the organization. 2. Mining Technology is ever evolving field.	1. Upgrade Knowledge through Long- term Studies. 2. Refresher course on Mining related field.
	Able to interpret and apply mineral taxation provisions appropriately in collecting fair share of mineral levies	Not Competent	Lack of experience and knowledge on ever evolving taxation policy	In-country/Ex- country seminars and workshop on evolving taxation policy

2.2.1. Monitoring & evaluation skills	Demonstrate the ability to plan, prepare and devise evaluation tools for monitoring and performance evaluation of mining operations to promote best mining practices.	Not Competent	Given the nature of the job it is not known to what kind of emotional stress one will be subjected to.	In-country/Ex- country training, workshops, seminars on compliance monitoring
	Demonstrate an ability to analyze the monitoring plans and reports by providing evidence based recommendations to enhance compliance.	Competent	NA	NA
	Exhibits high level of emotional intelligence while handling difficult situation	Not Competent	Lack of experience and knowledge	In-house seminars and workshops
2.2.2 Analytical & decision making skills	Conducts adequate assessment of the problem and identify optimal solutions based on sound judgment of the alternatives.	Not Competent	1. Inadequate knowledge, skills and resources. 2. Lack of exposure	Ex-country Training on Mining Statistics and Data Analysis.
	Ability to analyze and interpret various information and provide recommendations and solutions for sound decision making.	Competent	NA	NA
	Demonstrates the ability to delegate roles & responsibilities with clear instructions for	Competent	NA	NA

	effective functions of the organization.			
2.2.3. Accountability & Commitment	Ability to take responsibility for own work, actions and decisions including ownership of problems and issues with clear understanding of his/her roles, responsibilities, powers and accountability.	Competent	NA	NA
	Ability to demonstrate higher level of commitment and dedication to the assigned task to achieve expected results.	Competent	NA	NA
	Ability to understand the stakeholder needs/concerns and responds appropriately with sound basis and judgment.	Competent	NA	NA
2.3.1. Professionalis m	Guides subordinates/collea gues to maintain the standard of personal and professional integrity through display of professionalism. Be able to apply specialized knowledge, skills & judgment during implementation of mining &	Not Competent	 Lack of enabling working environment. Nature of job 	1. Mentoring by peers 2. In-country workshops on integrity

2.3.2. Communicatio n skills	environmental management plans, and OHS standards in the mine Ability to collaborate and resolve any issues arising from interaction for conducive working	Not Competent	Inadequate communication skills.	Workshop on communication skills. 2. Peer mentoring
	environments Exhibits an understanding of verbal and non- verbal communication strategies to pitch ideas or express views.	Competent	NA	NA
	Ability to communicate effectively both through verbal and written modes of communication to convey clear information, message and intentions etc.	Competent	NA	NA
2.3.3. Conflict Management	Ability to anticipate, analyze and prioritize possible conflicts with appropriate strategy and tools to resolve or mediate conflicts Ability to collaborate and build networks with the stakeholders for proper coordination and collaboration.	Not Competent	1. Inadequate situational assessment and conflict management skills. 2. Lack of exposure	In-country/Ex- country Training on conflict management skills
Key Role 3: Techni	and collaboration.			

Key Competencies	Description of Proficiency Levels (PL)	Performance (competent/No t competent)	Likely reasons for performance gap	Capacity Development intervention
3.1.1. Mining Engineering Knowledge	Demonstrates good knowledge in the field of Mining Engineering & Sustainable Mining Development approaches Possesses clear knowledge on mining methods, mine operation and optimization	Not Competent Not Competent	1. Lack of accurate, complete and up-to- date information on best practices and new emerging mining challenges including resources. 2. General ME degree does not suffice the needs of the organization. Lack of knowledge and experience	International Workshop/Trainin g on new and emerging environmental issues and best practices. Ex-country trainings, seminars and workshops
	Demonstrates sound knowledge on mineral resource governance tools for effective implementation of mineral development policy and legislations	Not Competent	1. Inadequate knowledge and experience. 2. Lack of accurate, complete and up-to- date information on best practices and new emerging mining challenges including resources.	Ex-country trainings, seminars and workshops

3.1.2. Legal & Regulatory knowledge	Demonstrate the ability to interpret and explain the rationales and basis of all the provisions of the mining laws and regulations.	Not Competent	1. Lack of experience 2. Lack of job rotation	1. Peer mentoring and self-learning
	Proactively inputs in the formulation, revision and amendment of Mining related policies, laws, guidelines and standards.	Not Competent	Lack of experience, knowledge and exposure	In-house workshop and training
	Possess good knowledge and ability to identify, analyze and propose appropriate measures for effective implementation of plans & policies	Not Competent	Lack of knowledge and exposure	In-country training/workshop on Mining legislation & other related laws for mining sector, e- learning
3.1.3. Ability to continue learning	Ability to clearly recognize the current and future capacity needs of the occupation and propose capacity development plans	Not Competent	Lack of experience, knowledge and exposure	Orientation and role play in different job roles. Mentoring. Job Rotation
	Ability to proactively pursue personal learning and development opportunities to enhance professional growth and development. Demonstrates curiosity for learning and keeps up-to-date with the latest	Not Competent	General ME degree does not suffice the needs of the organization. Mining Engineering is ever evolving subject and one has to keep on enhancing the knowledge.	Short term or long term training on Mining Engineering, Environmental Management, OHS, Mines Machineries, Mine Design Technique, Geotechnical engineering

	technologies and best practices.			
3.2.1. Applied research skills	Identifies problem and explore opportunities to develop appropriate applied research methodologies Demonstrate skills to process, analyze and interpret the research findings with field applications for evidence-based decision making. Ability to identify & analyze mineral commodity demand, supply and pricing in the domestic and global market potential to promote economic development.	Not Competent	1. Inadequate knowledge and skills on research. 2. Lack of dedicated research division	1. Short term training on Research Methodology. 2. Peer mentoring. 3. Self-learning 4. Out country exposure
3.2.2. Data collection & Analytical skills	Understands and Demonstrates good knowledge of statistical techniques and tools for analytical purposes. Understands and Demonstrates good knowledge of statistical techniques and tools for analytical purposes.	Not Competent	Inadequate knowledge, skills and resources on data analysis	In-country/Ex- country Training on Mining Statistics and Data Analysis.

3.2.3. ICT & communicatio n skills	Possesses higher level of knowledge and skills on application of digital tools in research and development	Not Competent	1. Lack of experience and exposure. 2. ICT is applicable to any sector and there is every time new development / evolvement on ICT	Ex-country training on communication skill and mining data
	Understand and demonstrate the use of service delivery automation system for efficient management of mineral resources.	Competent	NA	NA
3.3.1. Communicatio n skills	Ability to engage in conversation with audiences using appropriate communications modes and methods to achieve desired outcomes	Competent	NA	NA
3.3.2. Professional development skills	Possess an ability to carry out succession planning for mining professionals' continuity and effective service delivery	Not Competent	Inadequate professional development skills.	Ex-country exposure and Training on Professional development Skill
	Possess an ability to use appropriate training and instruction approaches and tools to effectively deliver the capacity building programs	Not Competent	Lack of experience, knowledge and exposure	1. Peer mentoring, 2. Ex-country training, seminars and workshops for development of professional skills
	Possess adequate knowledge and ability to develop training plans,	Competent	NA	NA

	modules and curriculum for mining professionals			
3.3.3. Networking skills	Demonstrate good skill to collaborate and build strong network with stakeholders for coordinated approach in knowledge sharing. Ability to create conducive working culture that promotes team building, coordination and collaboration	Not Competent	Lack of experience, knowledge and exposure	1. Peer mentoring. 2. Job rotation 3. Seminars among stakeholders to understand each other's mandates, future plans and knowledge sharing

2.7.3 Training Needs Assessment at Experienced Proficiency Level (P2)

Table 11: Training Need Analysis for the Experienced Level (P2) Proficiency

Key Role 1: Mineral Resource Developer				
Key Competencies	Description of Proficiency Levels (PL)	Performance (competent/No t competent)	Likely reasons for performance gap	Capacity Development Intervention
1.1.1 Knowledge on Policy & law making process	Exhibits clear understanding of protocols for policy formulation and approval process	Not Competent	Although has adequate knowledge but at this level, he is required to exhibit excellent knowledge on policy formulation and approval process	Ex-country exposure through seminars, workshops and trainings
	Demonstrate advance understanding of regulatory impact assessment, law	Competent	NA	NA

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	drafting instructions, rules and procedures, etc. of the country.			
1.1.2. Drafting skills	Draft & finalize the provisions of Mining related policies, laws, guidelines and standards.	Competent	NA	NA
	Demonstrates advance knowledge and skills on policy analysis tools for better outcome.	Not Competent	Although has knowledge on the subject matter but one has to keep update with the emerging tools and new ideas	In-country/Ex- country exposure through seminars, trainings and workshops
1.1.3 Research & Analytical skills	Interprets the standards, practices & codes adopted in the international policy & law making process Applies advance research skills and methodology for policy analysis on public policies in order to ensure that policies are relevant to the current needs of the nation and changing global scenario.	Not Competent	1. International laws, standards, codes and best practices are ever evolving thing and one has to keep updated with such new outcomes. 2. Lack of dedicated research division.	In-country/Ex- country exposure through seminars, trainings and workshops
1.2.1 Mining Engineering Knowledge	Possesses advanced knowledge on mining methods, engineering principles, environmental	Not Competent	1. ME is ever evolving subject 2. General ME degree does not suffice the	Long term Master's Degree on the subject matter and attending international workshops on new

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	management,		needs of the	and emerging
	sustainable mining		organization.	mining issues and
	development			best practices.
	concepts &			
	approaches and			
	mineral			
	production and			
	value chain			
	creation.			
	Interprets			
	provisions on legal			
	and regulatory			
	aspects on Mining,			
	Environment,			
	Social & resource			
	governance			
1.2.2. Mine	Interprets and		1. Inadequate	Long term
Planning &	correlate geology		knowledge on	Master's Degree
Design skills	and deposit		updated mine	on the subject and
	attributes,		planning and	short term Ex-
	resource		design.	country or in-
	information &		2. Lack of	country training
	geological controls		resources	on mine planning
	and structures for		resources	and design along
	mine planning &			with training on
	design			associated
	Guide & mentor			software.
	subordinates in			Software.
	the mine planning	Not Compotent		
	& using mine	Not Competent		
	planning &			
	optimization tools and software			
			NA' l l - l	Landan
	Possess advanced		Mineral market	Long term
	knowledge and		in the global	master's degree
	ability to identify,		scenario is not	on the subject and
	expand and exploit		static and	attending
	business		changes	international
	opportunities on		frequently	workshops,
	sustainable mining			seminars to
	of mineral			understand
	resources			mineral
				economics

1.2.3.	Guides			
Professionalism	subordinates/			
1 Totessionalism	colleagues to			
	maintain the			
	standard of			
	personal and			
	professional			
	integrity through			
	display of	Competent	NA	NA
	professionalism.			
	Be able to apply			
	specialized			
	knowledge, skills &			
	judgment during			
	feasibility studies			
	of any scale or			
	complexities			
1.3.1.Decision	Makes appropriate			
making skills	decisions while			
	encountering			
	complex and			
	differing			
	alternatives.			
	Ability to delegate			
	roles &	Competent	NA	NA
	responsibilities			
	and provide clear			
	guidance and			
	support in the			
	delivery of the			
	outcome.			
1.3.2. Project	Demonstrate			
management	ability to prioritize			
	and mobilize			
	resources with a			
	higher accuracy for			
	efficient use in			
	achieving the	Competent	NA	NA
	intended results.	copeterit		
	Ability to lead the			
	consultation			
	meetings with			
	_			
	stakeholders to expedite and make			

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1.3.3 Team work & Communication skills	informed decisions. Ability to identify, evaluate and manage complex risk with adoption of appropriate tools and techniques. Actively participates in collaboration and networking among stakeholders in achieving desired solutions. Ability to segregate information and disseminate both within and outside organization through clear communication means and channels Ability to lead and guide multiple teams through	Competent	NA	NA
Key Role 2: Mining				
Key Competencies	Description of Proficiency Levels (PL)	Performance (competent/No t competent)	Likely reasons for performance gap	Capacity Development Intervention

	T			Г
2.1.1. Legal &	Exhibit		1. Lack of	Standard
Regulatory	comprehensive		formal	Induction Program
knowledge	understanding of		dissemination	on Organization's
	the mining related		of national and	Vision, Mission,
	laws and able to		international	Mandates,
	interpret the legal		mining and	Functions,
	and regulatory		environment	Policies, Plans,
	provisions of laws,		related	Programs
	regulations and		laws/instrument	including National
	instruments on		S.	and International
	mining,	Not Competent	2. No system of	Legislations,
	environment and		job rotation.	frequent
	social aspects in		3. The	collaboration and
	resource		organization is	consultation with
	governances.		linked with	stakeholders
			many agencies	through seminars
			and lack of	and workshops
			stakeholder	
			collaboration	
			and	
			consultation	
	Ability to		1. Lack of	Standard
	segregate and		formal	Induction Program
	distribute the		dissemination	on Organization's
	inspectorate roles		of national and	Vision, Mission,
	and		international	Mandates,
	responsibilities	Not Competent	mining and	Functions,
	among the	Not Competent	environment	Policies, Plans,
	individuals & team		related	Programs
	involved in		laws/instrument	including National
	inspection and		s. 2. No	and International
	monitoring.		system of job	Legislations
			rotation.	

	Draft & finalize the provisions of Mining related policies, laws, guidelines and standards.	Not Competent	1. Inadequate knowledge on organization's strengths, weaknesses, available resources and work potentials. 2. Inadequate knowledge and skills on technological advancement in the mining field.	Exposure visit/workshop to study the state-of- the- art technology in the field of mining and environment.
2.1.2. Mining Engineering Principles	Possesses advanced knowledge on mining methods, engineering principles, environmental management, sustainable mining development concepts & approaches and mineral production and value chain creation.	Not Competent	1. General ME degree does not suffice the needs of the organization. 2. Mining Technology is ever evolving field.	1. Upgrade Knowledge through Long- term Studies. 2. Refresher course on Mining related field.
	Ability to interpret and explain the rationale behind the provisions of the mineral taxation policies and laws.		Lack of experience and knowledge on ever evolving taxation policy	In-country/Ex- country seminars and workshop on evolving taxation policy
2.2.1. Monitoring & evaluation skills	Ability to review and evaluate the plans, mechanisms and tools for monitoring and performance evaluation to	Not Competent	Given the nature of the job it is not known to what kind of emotional stress one will be subjected to.	In-country/Ex- country training, workshops, seminars on compliance monitoring STT on Remote

	Ability to identify non-compliance issues, evaluate and provide scientific/appropri ate recommendations based on the monitoring		Lack of experience and knowledge	Sensing for Mine Site Monitoring OJT, in-country/ ex-country workshops, seminars and study tour on mine monitoring and evaluation.
	reports. Exhibits exemplary level of emotional intelligence while handling complex situations		Lack of experience and knowledge	In-house seminars and workshops
2.2.2. Analytical and decision making skills	Ability to assess and weigh alternatives solutions to a problem and implement the best solutions to resolve problems. Demonstrate ability to analyze and interpret complex information with higher level of discerning consultation skills to resolve complex issues and decide the solutions. Ability to delegate roles & responsibilities and provide clear guidance and support in the	Competent	NA	NA

	delivery of the			
	outcome.			
2.2.3.	Ability to take			
Accountability	responsibility for			
& Commitment	own work, actions			
	and decisions			
	including			
	ownership of			
	problems and			
	issues in line with			
	the organizational			
	values without			
	guidance and			
	supervision.			
	Exhibits exemplary			
	commitment and			
	dedication to the	Competent	NA	NA
	assigned task to	·		
	achieve expected results without			
	fear and			
	prejudices.			
	Ability to identify and understand			
	the stakeholder			
	needs/concerns			
	and provide			
	appropriate			
	measures and			
	solutions to			
	address the needs			
	and concerns.			
2.3.1.	Guides			
Professionalism	subordinates/colle			
	agues to maintain			
	the standard of			
	personal and	Competent	NA	NA
	professional			
	integrity through			
	display of			
	professionalism.			

	Be able to apply specialized knowledge, skills & judgment during implementation of mining &environmental management plans,			
	and OHS standards in the mine			
2.3.2. Communication skills	Exhibits ability to respect differences of opinion and addresses disagreements objectively and professionally to achieve desired outcomes Demonstrate and ability to listen, accept and incorporate the views and concerns with flexibility and rooms for improvement Ability to segregate information and disseminate to the relevant stakeholders through clear communication	Competent	NA	NA
	means and channels			
2.3.3. Conflict Management	Ability to anticipate, analyze and prioritize critical problems by applying most relevant mediation methods to mitigate conflict/problems	Competent	NA	NA

Key Role 3: Technic Key Competencies	Actively participates in collaboration and networking among stakeholders in achieving desired solutions. al Expert Description of Proficiency Levels (PL)	Performance (competent/No t competent)	Likely reasons for performance gap	Capacity Development Intervention
3.1.1. Mining Engineering Knowledge	Demonstrates indepth knowledge in the field of Mining Engineering & Sustainable Mining Development approaches	Not Competent	1. Lack of accurate, complete and up-to- date information on best practices and new emerging mining challenges including resources. 2. General ME degree does not suffice the needs of the organization.	International Workshop/Trainin g on new and emerging environmental issues and best practices.
	advanced knowledge on mining methods, mine operation and optimization techniques	Competent	NA	NA

	Demonstrates an ability to propose and recommend plan of actions/resource governance tools for effective implementation of mining legislations to achieve the policy objectives	Not Competent	1. Lack of new emerging knowledge mineral resource governing tools 2. Lack of accurate, complete and up-to- date information on best practices and new emerging mining challenges including resources.	Ex-country trainings, seminars and workshops
3.1.2. Legal & Regulatory knowledge	Demonstrates an ability to propose and recommend plan of actions/resource governance tools for effective implementation of mining legislations to achieve the policy objectives	Not Competent	1. Lack of experience 2. Lack of job rotation	1. Peer mentoring and self-learning
	Draft & finalize the provisions of Mining related policies, laws, guidelines and standards.	Not Competent	Lack of coordination and collaboration among agencies and stakeholders	In-house workshop and training
	Ability to interpret and explain the rationale behind the application of appropriate and relevant provisions of the legal and regulatory measures in	Competent	NA	NA

	fulfilling the objectives of the policies and laws.		Land of	
3.1.3. Ability to continue learning	Exhibits in-depth understanding of technological advancement in the Mining Engineering fields and propose future capacity needs of the occupation and propose appropriate professional development plans & strategies		Lack of experience, knowledge and exposure	Orientation and role play in different job roles and peer mentoring.
	Ability explore and recommend education and development opportunities for individual and colleagues to enhance professional growth and learning opportunities. Exhibits eccentricity for learning & proposes to adopt those evolving technologies and best practices in line with technological advancement in the related fields.	Not Competent	General ME degree does not suffice the needs of the organization. Mining Engineering is ever evolving subject and one has to keep on enhancing the knowledge.	Short term or long term training on Mining Engineering, Environmental Management, OHS, Mines Machineries, Mine Design Technique, Geo-technical engineering
3.2.1. Applied research skills	Identifies critical problem, and explore	Not Competent	Inadequate knowledge and skills on	1. Short term training on Research

	opportunities to		research.	Methodology. 2.
	develop		2. Lack of	Peer mentoring.
	•			_
	appropriate		dedicated	3. Self-learning
	research		research	4. Out country
	methodologies		division	exposure
	and their			
	implementation			
	Exhibits sound			
	knowledge and			
	skills to interpret			
	research findings			
	using conceptual,			
	critical, and			
	strategic and			
	systems thinking			
	skills for evidence-			
	based decision			
	making.			
	Ability to identify			
	& analyze mineral			
	commodity			
	demand, supply,			
	gaps, and pricing			
	in the domestic			
	and global market			
	and recommend			
	for appropriate			
	interventions to			
	promote economic			
2.2.2 Data	development		In a da aurata	In an under 1/F.
3.2.2. Data	Effectively applies		Inadequate	In-country/Ex-
collection &	statistical		knowledge,	country Training
Analytical skills	techniques and		skills and	on Mining
	shows proficient		resources on	Statistics and Data
	use of statistical		data analysis	Analysis.
	tools to analyze			
	data for evidence-	Not Competent		
	based decision			
	making			
	Applies advance			
	statistical			
	techniques to			
	generate statistical			
	results using			

	annronriato tools			
	appropriate tools and techniques			
	and techniques			
2 2 2 107 0	December 1: -h - :		1 1 0 0 1 0 5	Ev saveter
3.2.3. ICT &	Possesses higher		1. Lack of	Ex-country
communication	level of knowledge		experience and	training on
skills	and skills on		exposure on	communication skills and service
	application of		emerging ICT tools	
	digital tools in research and		2. ICT is	delivery modules.
				۷.
	development Demonstrate	Not Compotent	applicable to	
		Not Competent	any sector and	
	ability to recognize		there is every time new	
	digital			
	transformation &		development/e volvement on	
	leveraging its		ICT	
	opportunities for			
	improved service			
3.3.1.	delivery Ability to shares,			
Communication	disseminates &			
skills	connects with			
SKIIIS	people on			
	information			
	through clear oral,			
	written, and	Competent	NA	NA
	interpersonal	Competent	INA	IVA
	communication			
	skills to maintain			
	strong public			
	relations on all			
	platforms			
3.3.2.	Possess advanced			
Professional	knowledge & skills			
development	to carry out	_		
skills	succession	Competent	NA	NA
	planning for			
	mining sector			
	Develops and		NA	NA
	implement			
	relevant training			
	and professional	Competent		
	development			
	programs to			
	enhance technical			

	capacities across the sector.			
	Possess advanced knowledge and ability to develop training plans, modules and curriculum for mining professionals	Not Competent	Mining Engineer is not trained to provide training to others.	1. Peer mentoring 2. Ex-country training and exposure on mineral sector
3.3.3. Networking skills	Demonstrate adequate skill to collaborate and build strong network with stakeholders for coordinated approach in knowledge sharing. Ability to lead and create conducive working culture that promotes team building, coordination and collaboration through frequent feed backs to improve active interaction and participation.	Competent	NA	NA

2.7.4 Training Needs Assessment at Advanced Proficiency Level (P1)

Key Role 1: Mineral F	Resource Developer			
Key Competencies	Description of Proficiency Levels (PL)	Performance (Competent / Not competent)	Likely reasons for performance gap	Capacity Development Intervention
1.1.1 Knowledge on Policy & law making process	Leads and demonstrate indepth understanding of the protocols for policy formulation and approval process	Competent	NA	NA
	Leads and exhibits in-depth understanding of regulatory impact assessment, law drafting instructions, rules and procedures, etc. of the country and other international instruments	Competent	NA	NA
1.1.2. Drafting skills	Lead & guides subordinates in the formulation, revision and amendment of Mining related policies, laws, guidelines and standards. Demonstrates in-	Competent	NA Policy analysis	NA In-country/Ex-
	depth knowledge and skills on policy analysis tools and at the same time possess good knowledge on its implementation for better result	Not Competent	tools are ever emerging and one has to be kept updated with new tools	country seminars, workshops

1.1.3. Research and Analytical Skills	Interprets the standards, practices & codes adopted in the international policy & law making process and explain rationales & principles	Not Competent	International standards and policies is not static and every time there is emergence of new best practices	Ex-country exposure, seminars and workshops
	Produces policy & research papers on public policies in order to ensure that policies are relevant to the current needs of the nation and changing global scenario.	Not Competent	General global market for minerals are not static and keeps on changing.	Ex-country study tour, meetings, seminars to understand the emerging the policies
1.2.1 Mining Engineering Knowledge	Mentors subordinates on mining methods, engineering principles, environmental management, sustainable mining development concepts & approaches and mineral production and value chain creation	Competent	NA	NA
	Interprets and explains rationale and basis of legal and regulatory aspects on Mining, Environment, Social & resource governance for sustainable development of mineral resources.	Not Competent	Inadequate and outdated knowledge and skills on Sustainable Mining Development frameworks	Ex-Country Short Term Training on Sustainable Mining Practices

1.2.2. Mine Planning and Design Skills	Guide and mentor subordinates in the application of geology and deposit attributes, resource information & geological controls and structures for best mine planning & design	Competent	NA	NA
	Guide & mentor subordinates in the mine planning & using mine planning & optimization tools and software	Not Competent	There is emergence of new mine planning and optimization tools and softwares and one may not be able to use it unless you get hand on training	Short-term/Long term training on such tools
	Leads and mentors subordinates in identifying potential mining business opportunity and expansion based on the global mining scenarios.	Not Competent	Mineral market is not static and one has to keep updated frequently	Ex-country exposure through seminars and workshops, study tour
1.2.3. Professionalism	Makes appropriate decisions that ensures and encourages subordinates to act and maintain personal and professional integrity. Guide & mentor subordinates in the feasibility study of mining projects	Competent	NA	NA

1.3.1.Decision making skills	Makes well- informed, effective, and timely decisions in highly complex situation. Execute clear role delegation strategies, plans, mechanisms and guidance to ensure timely delivery of the functions of the organization.	Competent	NA	NA
1.3.2. Project Management Skills	Demonstrate ability to priorities the resources and its mobilization with higher accuracy for efficient use in achieving the intended results. Ability to lead and guide the consultation meetings with stakeholders and deduce inclusive decisions & outcomes Ability to guide and mentor subordinates in identification, evaluation and management of risk. Ability to monitor, evaluate and review residual risk.	Competent	NA	NA
1.3.3. Team work & Communication skills	Guide and leads in engaging stakeholders through collaboration and networking in	Competent	NA	NA

	achieving desired outcome.			
	Guide and mentors subordinates on communication management both within and outside organization	Not Competent	The day to day work of the organization is dependent on different agencies and one has to collaborate with these agencies.	In-country seminars and workshops
	Ability to monitor team work, recognize individual contribution and manage conflicts within the team. Guide and mentor and motivate team members for active interaction and participation in the team.	Competent	NA	NA
Key Role 2: Mining R	egulator Description of	Performance	Likely reasons	Capacity
Competencies	Proficiency Levels (PL)	(Competent/No t competent)	for performance gap	Development Intervention
2.1.1. Legal & Regulatory knowledge	Ability to guide and mentor subordinates in the understanding and interpretation of the provisions of mining related laws and instruments for resource governance	Competent	NA	NA

	Ability to lead and implement the plans and strategies in delivery of the inspectorate roles and responsibilities of organization effectively.	Competent	NA	NA
	Lead & guides subordinates in the formulation, revision and amendment of Mining related policies, laws, guidelines and standards	Competent	NA	NA
2.1.2. Mining Engineering Principles	Mentors subordinates on mining methods, engineering principles, environmental management, sustainable mining development concepts & approaches and mineral production and value chain creation.	Not Competent	1. ME is ever evolving field and one has to keep updated with the emerging mining techniques, knowledge and skills 2. Technology continues to evolve and we need to evolve with it	Ex-country short- term training on the subject matter Training on Environmental Management in Mining
	Guides & mentors subordinates on the application of correct mineral tax based on policies, laws and regulations with clear directives and guidelines.	Not Competent	1. No proper data 2. The country follows Ad Valorem system of mineral levy collection and it goes in line with the mineral value which is inconsistent.	Study tour in the region, workshops

2.2.1. Monitoring & evaluation skills	Ability to guide and mentor subordinates in the planning, monitoring and performance evaluation of mining and related activities in promoting the best mining practices. Reviews and evaluates the severity of noncompliances in the reports and provides required evidence based mitigation measures.	Not Competent	1. Lack of proper and advanced monitoring skills. 2. Lack of exposure	Ex-country trainings on development of monitoring skills
	Exhibits and promotes art of emotional intelligence among colleagues and subordinates to handle varied levels of situations at work places.	Competent	NA	NA
2.2.2. Analytical and decision making skills	Ability to guide others in the assessment of the problem and alternatives with highest level of analytical and decision making skills in resolving complex problems.	Competent	NA	NA
	Able to guide and mentor subordinates in information analysis, interpretation and decision making with effective	Competent	NA	NA

	consultation and decision making processes.			
	Execute clear role delegation strategies, plans, mechanisms and guidance to ensure timely delivery of the functions of the organization.	Competent	NA	NA
2.2.3. Accountability & Commitment	Ability to lead and promote a culture of taking responsibilities, accountability and commitment at the individual and organizational levels.	Competent	NA	NA
	Displays highest level of commitment and dedication to the assigned task and mentors subordinates with motivation & rewards/pills to achieve expected results.	Competent	NA	NA
	Ability to guide and mentor subordinates in addressing the stakeholder needs/concerns with commitment and dedication.	Competent	NA	NA
2.3.1. Professionalism	Makes appropriate decisions that ensures and encourages subordinates to act and maintain	Competent	NA	NA

	personal and			
	professional			
	integrity while			
	enforcing mining			
	laws.			
	Guide & mentor		1. Lack of	Ex-country
	subordinates in the		exposure.	training and in-
	delivery of		2. Lack of job	country seminars
	professional services		rotation	on delivering
	through accurate			professional
	implementation of	Not Competent		services
	mining			
	&environmental			
	management plans,			
	and OHS standards			
222	in the mine			
2.3.2. Communication	Considers different views/suggestions			
skills	and encourages to			
SKIIIS	express the			
	concerns, issues and	Competent		
	criticisms for		NA	NA
	enhancement of			
	communication			
	plans and strategies			
	in the organization			
	Leads and facilitate			
	in creating room for			
	exhibition of			
	positive attitude and	Competent	NA	NA
	receptiveness to ensure effective	•		
	exchange of views			
	and knowledge			
	Guide and mentors			
	subordinates on			
	communication	with Competent		
	management with		N. A	NI A
	the stakeholders for		NA	NA
	creating conducive			
	working			
	environment			
2.3.3. Conflict	Guide and mentor		Lack of	In-country/Ex-
Management	subordinates in the	Not Competent	knowledge on	country
	application of		the conflict	workshops,

Voy Bala 2 Tashwisa	conflict resolution tools & techniques for meaningful outcomes. Guide and leads in engaging stakeholders through collaboration and networking in achieving desired outcome.	Competent	management and its tools	seminars on conflict management
Key Role 3. Technical Key Competencies	Description of Proficiency Levels (PL)	Performance (Competent/No t competent)	Likely reasons for performance gap	Capacity Development Intervention
3.1.1 Mining Engineering Knowledge	Demonstrates advance knowledge in the field of Mining Engineering & provides/initiates policy dialogue on Sustainable Mining Development plans and strategies for development of mining sector. Guide & mentors subordinates on mining methods selection, mine operation and optimization techniques for efficient mineral recovery Leads and provides	Not Competent	ME is ever evolving field and one has to keep updated with the emerging mining techniques, knowledge and skills	Ex-country short-term training on the subject matter Ex-country Ex-country
	recommendations on different mineral resource governance tools and adopt best	Not Competent	and legislation are ever evolving thing and it changes with time and	seminars, workshops, study tours and trainings

	practices for effective implementation of mineral development policy and legislations		situation. One's knowledge will not be adequate if he/she is not updated with new upcoming.	
3.1.2. Legal & Regulatory knowledge	Ability to guide and mentor subordinates in the understanding and interpretation of the provisions of mining related laws.	Competent	NA	NA
	Lead & guides subordinates in the formulation, revision and amendment of Mining related policies, laws, guidelines and standards.	Competent	NA	NA
	Guides & mentors subordinates on the application of correct provisions of mining and regulatory measures with clear directives and guidelines.	Competent	NA	NA
3.1.3 Ability to continue learning	Leads & mentors subordinates/collea gues to enhance their technical competence and ongoing professional development through active participation in training and knowledge	Not Competent	ME is ever evolving field and one has to keep updated with the emerging new mining techniques, knowledge and skills	Ex-country short- term training on the subject matter

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	dissemination programs.			
	Leads and mentors subordinates on the professional development front and creates opportunities for enhancing professional growth and development of the organization. Exhibits tech saviness and leads in promoting those technologies for improvement of business opportunities.	Not Competent	Personal learning and development opportunities to enhance professional growth and development is never ending process. The organization set up does not promote such opportunity.	Ex-country short- term training, workshops and seminars
3.2.1 Applied Research Skills	Mentor the subordinates in Identification of problems, and provide guidance in developing appropriate research methodologies and their implementation Demonstrates & mentors the subordinates in interpretation of research findings, applications & adoptions of such practices based on	Not Competent	1. Inadequate knowledge and skills on new research methodologie s. 2. Lack of dedicated research division	1. Short term training on new Research Methodologies. 2. Out country exposure 3. Self-learning

	the field trials and data Guide & mentor the subordinates/collea gues in analyzing mineral commodity demand and opportunities in the global market to promote economic development.			
3.2.2. Data collection & Analytical skills	Conducts in-depth data analysis, adequately interprets quantitative and qualitative statistical results using appropriate methods.	Competent	NA	NA
	Leads, provides and recommends innovative ideas and best statistical practices to improve analytical skills.	Not Competent	Lack of knowledge on advance statistical tools & techniques for data analysis	Training on Statistical software / tools and techniques
3.2.3. ICT & communication skills	Demonstrates advanced knowledge and skills on ICT tools, technologies and software for research & development Leads and guide peers & subordinates in adoption of digital tools & technologies and leveraging its opportunities for	Not Competent	1. Lack of experience and exposure on emerging ICT tools 2. ICT is applicable to any sector and there is every time there is new development/ evolvement on ICT	Ex-country training on ICT and communication skill ans mining data

	improved service delivery			
3.3.1. Communication skills	Considers different views/suggestion and facilitate to shares, disseminates & connects with people on information through clear oral, written, and interpersonal communication skills to maintain strong public relations on all platforms	Competent	NA	NA
3.3.2. Professional development skills	Clearly recognizes the current and future capacity needs of staff and provide opportunities and enabling environment for professional development.	Competent	NA	NA
	Leads and facilitates to promote technical capacity in an organization.	Competent	NA	NA
	Guides and mentors subordinates in the development of training plans, modules and curriculum for mining professionals	Not Competent	Mining Engineer is not trained to provide training to others.	1. Self-learning 2. Ex-country training and exposure, seminars and workshops on mineral sector professional development

3.3.3. Networking skills	Guide and leads in building strong network with stakeholders through collaboration and networking for coordinated approach in knowledge sharing.	Competent	NA	NA
	Monitors and recognize individual contribution and manage conflicts within the team to create a conducive working culture that promotes teamwork, coordination and collaboration.	Competent	NA	NA

2.8 Short-term Program and Learning Objectives

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 learning objectives. The respective proficiency level officials will be able to achieve the objectives mentioned against each of the training.

Table 13: Short-Term Training Program

Proficie	Proficiency Level: Foundation (P4)				
SI. #	Training / Intervention	Methods of Implementation	Learning Objectives		
1	Seminars, Trainings and workshops on mining related legislation and policies	Institute and implement a standard inhouse orientation to new recruits and recruits through	 Equip the new recruits with mining related policies and legislations so that they well verse for better functioning of the organization. Enforcement and Monitoring 		

,	J	J

		job rotation, lateral transfer	3. Improve the enforcement culture in the organization
2	Study tour on Environmental Management in Mining	In-country/Ex- country seminars, workshops and trainings	 This will help in understanding the best solution to environmental problems thereby promoting sustainable exploitation of mineral resources. Aim to provide information on the best practices in mining waste management foster exchange of information on best available technologies for mining waste management, on technical, organizational and administrative aspects
3	Research Methodology	In-country/Ex- country seminars, workshops and trainings	Improve the research culture in the organization to give evidence-based recommendations to issues and problems
4	Ethics and integrity & Conflict Management Strategies	In-country workshops and seminars	 The officials will show integrity and work ethics at all time on duty. To promote smooth functioning of the organization
5	Training on Basic Geology	In-house Seminar/OJT	Fundamentals of Geology & geophysics and its application in Mine Planning & design
6	Training on e-Services portal of the organization	In-country workshops and seminars	Understand and be able to use all modules of the e-service portal of the department.
7	Refresher Course on OHS in Mining	In-country workshops and seminars	Understand and be able to implement the OHS in the mining sector.
Interm	ediate Proficiency Level	(P3)	
SI. #	Training/Intervention	Methods of Implementation	Learning Objectives
1	Training on Mine Geology & Geophysics for mine	In-country/Ex- country (STT)	Interactions between geology and mining engineering disciplines

	planning, design & operations		 2. Contributions and application of geological data in mine planning, design and operations 3. Fundamentals of geophysics and mining applications 4. Geological resource evaluation and reporting 	
2	Training on Mine Planning and Optimization Software (SURPAC)	In-country/Ex-	Understand the workflow required to create, validate, and classify a resource in Surpac Use Surpac to perform several different	
2		country (STT)	types of estimations	
			3. Resource estimation and evaluation	
			4. Mining & Geology fundamentals	
3	GIS in Mining	In-country/Ex-	1. Application of GIS in Mining Operation,	
		country (STT)		
	Mine Management Principles and			
	Entrepreneurship		2. Identify the main steps in the mining cycle	
			3. Recognize the sources of demand and supply of minerals	
4		In-country/Ex- country (STT)	5. Analyze the importance of social issues in the mining industry	
		, ,	6. Discuss the impacts of mining on the environment	
			7. Describe primary production and mineral processing methods	
			8. Explore current and future challenges facing the mining industry	
	Training on Mining Project Management	In-country/Ex-	1.Project valuation from exploration through to mining operations	
5		country (STT)	2. Identify the basic principles and practical methodologies of mine project evaluation	

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Evnorio	enced Proficiency Level (D2)	 3. Apply these principles and methods to derivation of the project variables & for effective decision making 4. Understand the concepts of systems engineering to improve decision-making during complex projects 5. the importance of a 'whole-of-life' view of the engineering of system
SI.#	Training / Intervention	Methods of Implementation	Learning Objectives
1	Digital Transformation for the Mining Sector	In-country/Ex- country (STT)	 New Technologies for asset management in mining Application of Drones in mining operation including exploration, planning, monitoring and restoration Facilitation of Sustainable mining practices through understanding of Lean Mining, Safe & Green Mining concepts
2	Training on Mining Investment & Governance tools	In-country/Ex- country (STT)	 Strengthen governance of the sector Attract mining investment and Improve the use of resource revenues for sustainable national development.
3	Training on Mine to market value chain creation	Ex-country (STT)/Online Course	 Mine Project valuation and economics Source of value chain creation Concept of supply chain, warehousing, integrated processes Offsetting environmental footprints Enhancing a mine-to-market performance understanding the value chain's constraints

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	Training on Mining		1. Mining Fiscal Instruments		
	Fiscal Regime Design/Mineral Taxation		2. Able to learn guidance on tax incentives in the mining sector		
4	Taxation	In-country/Ex- country (STT)	3. Analysis of impact of tax incentives on revenue collection		
		, ,	4. Design of tax incentives to induce mining investment		
			5. Types of Mining Tax incentives & related behavioral responses		
Advanc	ed Proficiency Level (P1)			
SI. #	Training/	Methods of	Learning Objectives		
51. #	Intervention	Implementation			
	Short Courses on Economic development opportunities & social and environmental		1.Learn economic development opportunities and tackle social and environmental sustainability in the mining sector 2. Abla to learn the sequent of the Social		
1	sustainability.	Ex-country training (STT)	License to Operate (SLO) in the Mining sector.		
			3. Analyze the importance of social issues in the mining industry		
			the mining sector 3. Analysis of impact of tax incentives on revenue collection 4. Design of tax incentives to induce mining investment 5. Types of Mining Tax incentives & related behavioral responses Learning Objectives 1. Learn economic development opportunities and tackle social and environmental sustainability in the mining sector 2. Able to learn the concept of the Social License to Operate (SLO) in the Mining sector. 3. Analyze the importance of social issues in the mining industry 4. International principles of sustainability 5. Best practice mining operations 7. Rehabilitation and mine closure 1. Enhancing Project Performance 2. Project Management Essentials 3. Effective Presentation Skills 4. Negotiation Skills and Influencing Strategies 5. Building Resilient Team 1. fundamental relationships that develop around the extractive industries		
			2. Able to learn guidance on tax incentives in the mining sector 3. Analysis of impact of tax incentives on revenue collection 4. Design of tax incentives to induce mining investment 5. Types of Mining Tax incentives & related behavioral responses Learning Objectives 1. Learn economic development opportunities and tackle social and environmental sustainability in the mining sector 2. Able to learn the concept of the Social License to Operate (SLO) in the Mining sector. 3. Analyze the importance of social issues in the mining industry 4. International principles of sustainability 5. Best practice mining operations 7. Rehabilitation and mine closure 1. Enhancing Project Performance 2. Project Management Essentials 3. Effective Presentation Skills 4. Negotiation Skills and Influencing Strategies 5. Building Resilient Team 1. fundamental relationships that develop around the extractive industries 2. Role of technology and regulation to		
			7. Rehabilitation and mine closure		
	Professional				
	Development Course on Emerging		2. Project Management Essentials		
2	Engineers Leadership	In-country/Ex-	3. Effective Presentation Skills		
	Program	country (STT)			
			5. Building Resilient Team		
3	Social Performance Management in the	In-country/Ex-			
	Extractive Industries (SPMEI)	country (STT)			

3. Policy perspectives on the community engagement and mining industry linkages
4. Performance bench marking and milestones
5. National Development & Mining SoEs

2.9 Proposed Long-term Program (Specialization)

Table 14: Long Term Training Program for Mining Engineers

Sl. No	Program	Specialization	Remarks
1	Masters in Mineral Economics*	Mineral Economics	Ex- Country
2	Masters of professional Engineering (Mining)	Mining & Management	

Note*:

- 1. The program is oriented to mining engineers, geologists, and others related engineering professionals who has professional experiences in the relevant field.
- 2. The DGM has an established Mineral Development Division (MDD) with an objective to delineate mineral promotional roles with regulatory functions. MDD is involved in conducting feasibility studies of mineral deposits and review of mineral levies for which there is a need of a Mineral Economist.
- 3. Most importantly, MDD is involved in framing mineral policies, revising mineral rents, royalties and establishing Minimum Floor Price (MFP) on an annual basis. Also, the requirement of value additions for various minerals are mandated by the regulations to promote in-country value chain creation as articulated in the MDP 2017.
- 4. Further, Mining Engineers under Mining Division is also required to know about the mineral economics while enforcing the royalty system and other mineral levies. Mineral economics is one of the main subjects in mining engineering where basic economics on mining and related activities like NPV, cost-benefit analysis on mining projects are learnt. Therefore, further specialization in mineral economic is necessary and important for mining engineers.
- 5. The proposed course is a specialized program with a special focus in mineralogy and mineral taxation system and we find that course is relevant to our needs.
- 6. Prior work experience in the field of mining is required to be eligible to undertake the course and therefore, the course is found suitable to officials working in the DGM.

2.10 Implementation of Competency based Framework

The implementation of training and other intervention has to be based on the mandatory **program/interventions** listed under section under the training needs analysis (Section 2.8) of this document. The mandatory list of training/intervention includes all the programs against the behavior indicators 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. Annual prioritization
- b. Most critical area of intervention
- c. Rationalization of selection of participants
- d. Availability of the resource allocation

Implementation has to be initiated and spearheaded by the concerned department or parent agency in close coordination and collaboration with the respective HR Division.

2.11 Recommendations:

a) Capacity Building Program

Competency Based Framework (CBF), is a useful and available instrument which RCSC and HRD of the organization may use to quickly and easily implement a competence-based approach in human resources management. For implementation, the prioritization has to be done on an annual basis by the HR in consultation with the Department & Divisions of the Ministry. A robust hands-on training, internship, suitable refresher course and self-development program must be provided to strengthen the mind-sets and skill-sets of officers at the regular intervals.

Based on the opinion polls and suggestions from the cohort of Mining Engineers in the department, it is suggested to have an implementation strategy for the identified capacity development programs which would enhance theoretical knowledge, practical know-hows and international insights that would strengthen the Knowledge & skill-sets of Mining Engineers at the regular intervals. The cohort also stressed on the following programs to be part of the competency building initiatives;

- 1. Formal induction or apprenticeship courses to the new recruits into the foundation level.
- 2. Timely intervention on the up-skilling programs through short-term and refresher courses to those in the service would update officers on the new technology, development and skill sets requirement
- 3. RCSC should recommend budget provision for capacity building in the Department/Agency's annual budget as per CBF recommendations

b) Implementation of the CBF

A competency-based framework describing the knowledge, skills, abilities and behaviors expected of a Mining Engineer has been developed by analyzing the key roles, job descriptions, competency areas and standard mining industry competency models across the sector.

People are the key enabler of any organization. It is therefore essential that RCSC invest in their people as a fundamental element of their organizational development and modernization strategies.

Attracting talent, supporting the professional development of employees, proactively shaping the future workforce and retaining top performers are some of the critical issues faced by the Department of Geology & Mines. Involving the employers in the development of competence-oriented curricula, career counseling and joint internship programs are just some of the processes which can be initiated. Competence models need to be constantly updated in order to reflect the workforce dynamism, and enable the forecasting of skills needed in the future. Competence assessment tools are useful to make skills and competences visible, both for the employee and for employers. The outcomes of competence assessment can boost individuals' self-esteem by improving their awareness of their own strengths.

- 1. Ideally, assessment and self-assessment tools and the assessment process should be part of a framework.
- The outcomes of competency assessments can also be used to decide on the right training to acquire the necessary competences and skills to bridge the gap between current role and the role that needs to be able to perform

c) Training impact assessment

The Training Impact Assessment must be instituted to assess how well the training program met the learner's needs and objectives, what knowledge and skills it has imparted to learners, what desirable change it has brought into the learners' performance, and what organizational benefits it has yielded. A proper database or inventory of the capacity building programs availed by the professionals in and out country needs to be instituted and assess the learning outcomes from those capacity building programs.

2.12 Conclusion

Designing and implementing a competency-based framework system can help the Department of Geology & Mines to maximize the organizational values. Focusing on individual and organizational competencies will facilitate the re-engineering of the roles and responsibilities of staff, and ensure that officers are carefully selected, deployed and trained to respond to the organization's strategic needs and ultimately guarantee organizational performance.

The framework has emerged from extensive consultations with Mining Engineers from the department as well as from the private organizations and within the mining industry as well. Literature review, online surveys, focused group discussion, brainstorming sessions were some of the processes undertaken to identify 3 key roles, 9 competency areas, 26 key competency areas and 64 behavioral indicators that define the traits needed for successful job performance. Further, these attributes were grouped under 4 proficiency domain levels of the RCSC cadre in the P1- P4 level. In addition the training need analysis (TNA) for the identified proficiency descriptors were used to assess the performance gaps in the proficiency levels of the mining engineers and accordingly interventions were suggested in terms of mandatory short term training to immediately improve skills or enhance their competencies to be able to perform the jobs.

In order to build the institutional capacity, specific long term capacity buildings were also identified for the Mining Engineers of the department. Mining as a trade requires specific skills sets in tandem with the technological advancement in the mining operations, environment management, monitoring, taxation aspects and other transversal skills required for managing the mining activities.

In this regard, the main objective of HRD is to help employees to assume ownership of this culture of change. The role of the HR manager as a strategic partner requires the HR function to provide expertise in support of the organization's overall strategy. Furthermore, once the overall strategy has been defined, the HR function may have to make staff adjustments in order to enable this framework to be implemented.

To be effective, a competency-based framework must be embedded at all levels of the organizational culture – its success is not the sole responsibility of the structure in charge of HRM but rather requires the full engagement and support of both management and staff alike. Establishing a competency based HRM system only builds the foundation of the system – the system must now be operationalized and institutionalized for the organization and the staff to fully reap the benefits of such a system.

Lastly, this CBF is intended to be a dynamic and living document so that future developments can be incorporated based on changing needs of the organization during the course of its implementation.

References

- DGM. (2021). Competency Based Framework for Mines Inspectors. Thimphu: DGM
- Royal Civil Service Commission. (2019). A Guidebook on Competency-based. Thimphu: RGoB