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भे अव :जयूना चा केना वा का



DEPARTMENT OF AGRICULTURE Ministry of Agriculture and Forests Royal Government of Bhutan March 2022

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FOREWORD

The Department of Agriculture is pleased to publish the Competency-Based Framework (CBF) for the Agriculture Supervisors. The CBF introduced by the Royal Civil Service Commission is envisaged to enhance and strengthen the capacity and capabilities of civil servants through different competency development interventions considering the existing performance gaps. Such initiatives will not only help in recognizing the key knowledge, skills, and abilities required to perform duties and responsibilities effectively in an organization but also guide them in enhancing their performance and behaviours at the workplace.

The four-member task force represented by two divisions, the Agriculture Research and Extension Division and Agriculture Production Division of the Department of Agriculture, has completed the development of CBF for the Agriculture Supervisors as per the CBF guideline. The team has performed their assignment with full commitment through a series of consultations, meetings, online surveys, workshops and focused group discussions with all the relevant stakeholders to validate their findings to come up with an effective and comprehensive document. I would like to commend the members for meticulously coming up with a holistic CBF. In total, 3 Key Roles, 9 Competency Areas, 18 Key Competencies, and 36 Behaviour Indicators were identified for the Agriculture Supervisors. They also have carried out the training needs analysis to assess the performance gaps and also identified both the short-term and long-term training programs and other competency development interventions required at different proficiency levels.

The Department is confident that the introduction of CBF for the Agriculture Supervisors will greatly benefit in enhancing service delivery through consistent professional and personal development.

With Best Regards,

pantshe

Mr. Yonten Gyamtsho DIRECTOR

ABBREVIATIONS AND ACRONYMS

1101		
APA	Annual Performance Agreement	
AED	Agriculture Engineering Division	
APD	Agriculture Production Division	
ARDC	Agriculture Research and Development Centre	
ARED	Agriculture Research and Extension Division	
BI	Behavioural Indicator	
CA	Competency Area	
CBF	Competency Based Framework	
CDI	Competency Development Intervention	
CoRE	Council for Research and Extension	
CoRRB	Council for RNR Research of Bhutan	
DoA	Department of Agriculture	
DRDS	Department of Research and Development Services	
FYP	Five Year Plan	
GIS	Geographic Information System	
GNH	Gross National Happiness	
HR	Human Resource	
ICT	Information and Communication Technology	
IWP	Individual Work Plan	
КС	Key Competencies	
KR	Key Roles	
KSA	Knowledge, Skills and Abilities	
LTT	Long Term Training	
LMS	Lang Management Section	
M&E	Monitoring and Evaluation	
MOG	Major Occupational Group	
NCOA	National Centre for Organic Agriculture	
NMC	National Mushroom Centre	

NPHC	National Post Harvest Centre	
NPPC National Plant Protection Centre		
NSC	National Seed Centre	
NSSC	National Soil Services Centre	
OJT On Job Training		
R&D Research and Development		
REID Research Extension and Irrigation Div		
RNR Renewable Natural Resources		
RCSC Royal Civil Service Commission		
SLM	Soil and Land Management	
S Supervisor		
SS	Senior Supervisor	
STT Short Term Training		

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1 Background

1.1 Department of Agriculture

The Department of Agriculture (DoA) was instituted right from the commencement of the First Five-Year Plan (FYP) on 1 October 1961 and it is one of the oldest government departments in the country. The initial setup of the department began with the establishment of research stations in Yusipang and Samtenling and the primary focus was provided in agriculture. The extension services provided were top-down dominated by input supply, farmers' training, demonstrations, and field days until the end of the 4th FYP. The DoA appointed Dzongkhag Agriculture Officers and extension agents since 1982 in dzongkhags and gewogs coinciding with the decentralization process in the 5th FYP. The main extension activities were focused on improving soil fertility, plant protection, and farm mechanization to enhance food production.

The role of extension agents was recognized more as a change agent and communicator of knowledge and information on improved crop production in line with the decentralization policy. During the 1990s and 2000s, the department underwent numerous institutional reorganizations. The names of the institutes and mandates therefore never remained consistent. A review of the national research system in 1991 led to the integration of the agricultural extension system. The integration exercise brought extension staff from the Department of Agriculture and Animal Husbandry under Research Extension and Irrigation Division (REID) with its creation in 1993. REID was renamed the Department of Research and Development Services (DRDS) in 1999. In early 2003, DRDS was bifurcated into DoA and Council for Research and Extension (CoRE). The extension system remained with DoA while the research system was placed under CoRE and CoRE was renamed as Council for RNR Research of Bhutan (CoRRB) in 2003. The restructuring exercise in 2009 realigned research with the respective departments which subsequently led to the dissolution of CoRRB in 2016. The agriculture and research mandates are both with the DoA currently.

The Department of Agriculture has three divisions namely Agriculture Production Division (APD), Agriculture Research and Extension Division (ARED), and Agriculture Engineering Division (AED) under the current organizational setup. The Department is further supported by four Agriculture Research and Development Centres and seven support service-oriented Central Programs stationed across the country. These wings of the department provide technical backstopping to the Dzongkhag Agriculture Sectors and the Gewog Extension Officers who are the engine to our extension services.

1.2 Vision Mission and Core Values of the Department of Agriculture

Mission Achieve food and nutrition security, agricultural transformation through innovative and sustainal technologies, diversified and competitive economic/production options, inclusive and sustainable policies and programs.	Ja
	ne
Core valuesInnovate and promote sustainable and climate resilid agriculture technologies to ensure food and nutrition securitySupport market-oriented production of agricultural commoditiesEngagement of multi-stakeholders to enhance outre service deliveryEnhance capacity and career progression among the professionalsPromote, consider and conserve cultural and comm sensitivity while disseminating agricultural technolog Mainstream gender and youth into agriculture sector developmentEnsure empowerment and inclusive participation of farmers and stakeholdersStrengthen responsibility and accountability Promote impact oriented and result based agricultur research and development	ach and anity ies

Figure 1: Vision, mission, and core values

1.3 The existing institutional setting of the Department of Agriculture

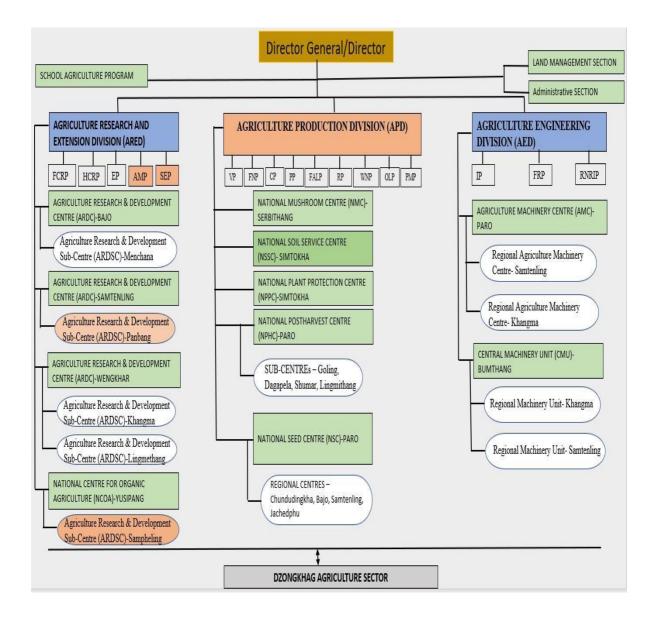


Figure 2: Institutional setting

2 Competency-Based Framework for Agriculture Supervisor

2.1 Introduction

The competency and efficiency at the workplace to attain national goals and objectives have been a concern in the absence of a relevant framework to guide the professional development of civil servants in the country. As a result, the Royal Civil Service Commission (RCSC) has initiated and adopted the Competency-Based Framework (CBF). The CBF is a model that broadly defines the blueprint for excellent performance within the organization. It was introduced to enhance the service delivery of civil servants by providing desirable platforms for professional development thus marking a paradigm shift towards a more structured and exhaustive approach to capacity development. The CBF aims to guide an organization to identify skills needed by employees, assist continuous development and professionalization to deliver responsibilities effectively, and enhance efficiency. It ensures that employees have a common understanding of the organization's values and expected excellent performance behaviours.



Figure 3: CBF in the key HR system

With the introduction of CBF across all the Major Occupational Groups (MOG), the civil servants will remain guided by the principles, knowledge, skills, and ability and are envisaged to enhance service delivery and performance. It will also assist agencies in envisioning definite and coherent skills requirements to strengthen human resource functions primarily in areas such as performance management, succession planning, talent management, and career progression.

The CBF for the Agriculture Supervisor is aligned to the Department of Agriculture's vision, mission, and core values with a common understanding of critical success factors and desired

behaviours within the organization. The CBF as a key HR approach establishes a strong link between the organization and an individual on performance and behavioural aspects. Therefore, different occupational groups in the civil service will have a distinct framework to guide them and this framework will manage all the Agriculture Supervisors employed under the DoA.

A task force team of 4 officials from two key divisions under the Department of Agriculture (Agriculture Research and Extension Division & Agriculture Production Division) were trained on the CBF development process. A series of field consultations and meetings with different stakeholders were held besides online surveys to validate the Key roles (KR), Competency areas (CA), Key Competencies (KC), and Behavioural Indicators (BI's) of the Agriculture Supervisor. The thematic areas for capacity-building initiatives were analysed based on the questionnaires circulated to all the existing officials within the MOG. The updated list of officials was obtained from the Human Resource Division (HRD) of the ministry. The CBF for Agriculture Supervisor has been structured by the "Guidebook on Competency-based Framework for Civil Servants, 2019" published by the RCSC.

This framework is formulated to guide the agriculture supervisors not only in enhancing their competency but also in improving their behaviours at the workplace. The framework identified 3 Key Roles (KR), Roles Profiles (RP), 9 Competency Areas (CA), 18 Key Competencies (KC), 36 Behavioural Indicators (BI), and 3 Proficiency Levels (PL) for agriculture supervisors. The CBF will provide a platform for them to become a good leader at the workplace with required professional and behavioural competencies

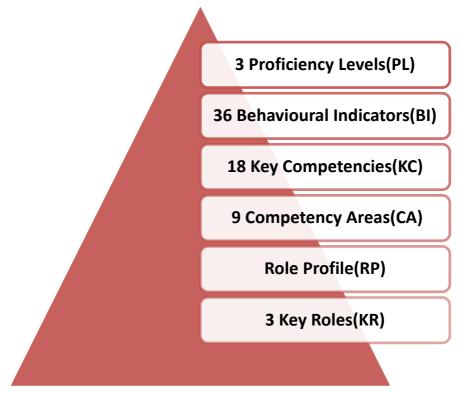


Figure 4: Features of CBF framework

2.2 Purpose

The CBF focuses on the highly interrelated attributes, mainly knowledge, skills, and abilities essential for the Agriculture Supervisors to achieve a high level of professional competence and deliver the highest standard agricultural services. The framework was developed with the following aim and objectives.

2.3 Aim

Build a fraternity of agriculture supervisors who are highly knowledgeable, skilful and competent in delivering efficient and effective agricultural services of the highest standard.

2.4 Objectives

- Introduce Competency-Based Framework and approach in the Department of Agriculture
- Enhance and strengthen the capacity of Agriculture Supervisors by implementing Competency based-framework HR development initiatives.
- Identify major performance gaps and competency development interventions for Agriculture Supervisors.

3 CBF Framework Development Processes

The development of Competency-Based Framework involved identifying Role Profiles, Competency Areas, Key Competencies, Behavioural Indicators, Proficiency Levels and Training Needs Analysis for Agriculture Supervisor(s). It was developed through a rigorous, and inclusive consultative process with key stakeholders within the department. The task force members of the department organized a series of consultations meetings, workshops, online surveys, and focused group discussions after attending the CBF development training from RCSC. The CBF development processes are highlighted in the figure below;

3.1 Timeline

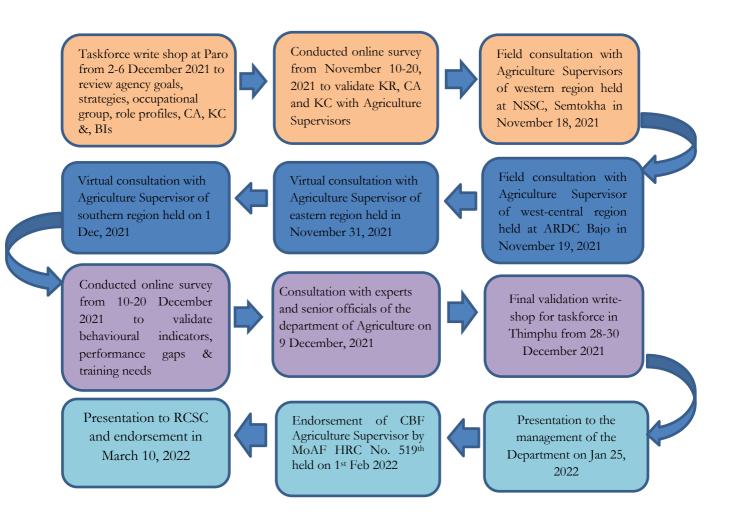
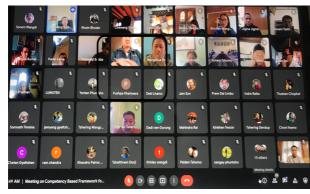


Figure 5: CBF development processes

3.2 Stakeholder consultation meetings



Taskforce trained by RCSC master trainers



Virtual consultation meeting



Field consultation meeting at ARDC Bajo



Field consultation meeting at NSSC Semtokha

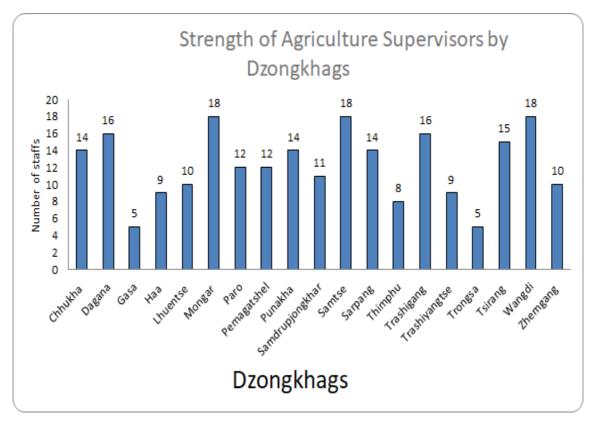
Consultation with senior officials and experts

Figure 6: Stakeholder consultation meetings with Agriculture Supervisors, senior officials and experts

3.3 The existing human resource strength of Agriculture Supervisor

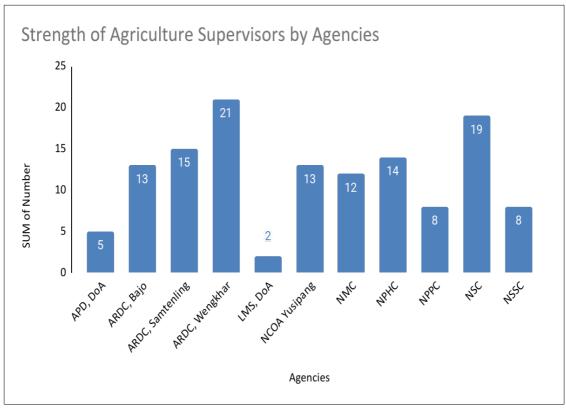
The "Agriculture Supervisor" includes Supervisory and Senior Supervisory officials of S2-S1 and SS4-SS1 position levels working under the Department of Agriculture in different agencies (Research and Development Centres, Central Programs, Divisions, Dzongkhags, and Gewogs) in multi-disciplinary fields such as Field Crops, Agronomy, Horticulture, Medicinal, and Aromatic Plants, Agriculture Economics, Seed Science, Mushroom, Microbiology, Biotechnology, Agriculture Chemistry, Soil Science, Plant Protection, Organic Agriculture, Post-Harvest, Protected Cultivation, Water Management, Biometrics, Nutrition Science, Agroecology, Climate and Environmental Sciences, Floriculture and Landscaping, Agro-meteorology, Agriculture Extension, Agriculture Research, and Management.

The majority of the employees under the S & SS position levels are working in the Dzongkhags with a total number of 239 which accounts for 65 % of the overall employee in this category. Among the Dzongkhags, the highest number of staff are in Wangdue, Samtse, and Dagana with 18 employees each and the lowest in Bumthang, Gasa, and Trongsa Dzongkhags with 5 employees each. The number of staff corresponds to the number of gewogs in each Dzongkhag.



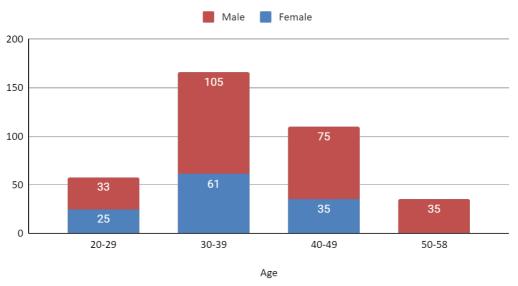
Graph 1: Strength of Agriculture Supervisor in Dzongkhags

Under the different agencies, the total strength of employees under the S & SS position levels is 130 which accounts for 35% of the overall staff strength. The maximum number is working in ARDC Wengkhar with 21 employees. The lowest number is in the Land Management Section, Thimphu with 2 employees only. NSC and ARDC Samtenling have 19 and 15 employees respectively while ARDC Bajo and NCOA Yusipang have 13 employees each.



Graph 2: Strength of Agriculture Supervisor in Agencies

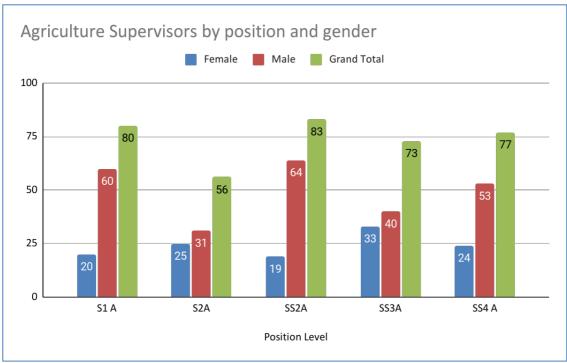
The age of the employees ranges from 22 to 56 years and the majority are in the 30-39 age group encompassing 45% of the total employment. The lowest number of employees are in the 50-58 age group with just 35 employees translating to just 9% of the total. Genderwise, males dominate in every age group and encompass 65% of the total employees.



Agriculture Supervisors by Age and Gender



The distribution of employees across different position levels is relatively uniform except for the SS1A level where there is no employee currently. The highest and the lowest employees are in SS2A and S2A position levels with 80 and 56 employees respectively. In all the position levels, there are more males over female employees.



Graph 4: Agriculture Supervisor by position and gender

4 Diagrammatic overview of CBF Agriculture Supervisor

The CBF structure is a diagrammatic overview of the key roles and competency areas required for the Agriculture Supervisor. The diagram shows that each Key Role of an Agriculture Supervisor is subdivided into 3 Competency Areas and each Competency Area is further sub-divided into 2 Key Competencies. In total, 3 Key Roles, 9 Competency Areas, 18 Key Competencies were identified.

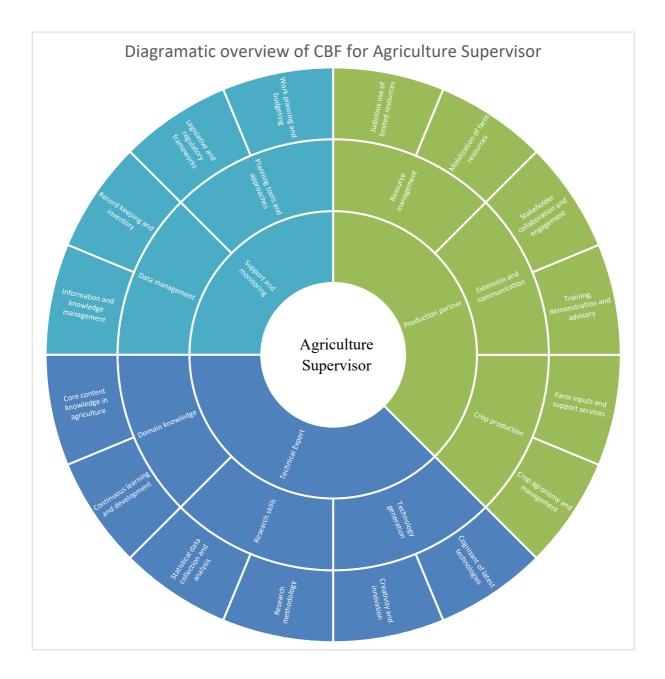


Figure 11: Diagrammatic overview of CBF Agriculture Supervisor

5 Identification of Key Roles

The key role is an organized set of behaviours that are crucial to achieving the current and future goals of the Department of Agriculture. Following are the key roles expected to be performed by the Agriculture Supervisor as depicted in the figure below.

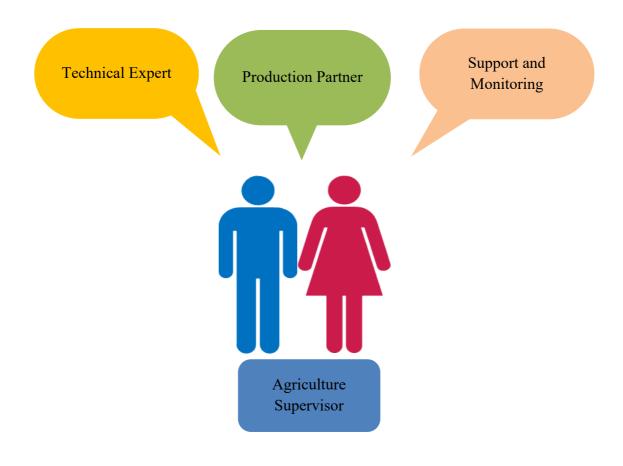


Figure 12: Three Key Roles of Agriculture Supervisor

5.1 Description of the role profile

The role profile is the description of roles that Agriculture Supervisors are expected to demonstrate in achieving the outcomes of the Department of Agriculture. 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 Agriculture Supervisors to carry out a prescribed set of tasks.

Table 1: Role Profile

Sl#	Key Roles	Role Profile
1	Technical Expert	 Provide technical support and assistance in application of subject specific knowledge and skills Assist in developing subject specific agriculture plans and programs Assist in carrying out basic/adaptive/applied/need based agriculture research and development Assist in developing and releasing of innovative and climate resilient agriculture technologies Assist in implementation of research outreach programs for technology dissemination and adoption Conduct training and demonstration on innovative and new farming technologies Assist in providing specialised farm advisories and weather/climate services Conduct impact assessment and evaluation of farming technologies adopted in the field Applies various statistical and ICT tools for agriculture research Record, maintain and analyse agriculture data for proper planning and decision making Engage in information sharing, publication and knowledge
2	Production Partner	 Management Assist in developing commodity production plans and programs based on agro-ecological feasibility and priority Facilitate in mobilizing farm inputs (e.g., seed & seedlings, farm equipment, electric fencing, fertilizers, agro-chemicals etc.,) for agriculture production Facilitate and engage in agriculture infrastructure development (irrigation, farm road, RNR-office etc.) Facilitate in land services (wetland conversion, land exchange, land development etc.,) Facilitate in agriculture credit services and technical clearances Engage in community mobilization, collaboration and conflict management for effective planning and implementation Supervise, guide and advise farmers, entrepreneurs and youths on improved agriculture technologies and innovations Conduct training and demonstration on improved agriculture technologies Assist to strengthen professional and institutional linkages and implement collaborative activities (e.g., post-harvest, value addition, marketing etc.,) Facilitate digitization of agriculture inputs and production services for effective service delivery

2	0 1		
3	Support and	• Assist in developing agriculture plans and programs as per	
	Monitoring	the goals and objectives of organisation	
		• Act as a representative of the department/ministry and	
		sensitize and advise local government on agriculture policies,	
		plans and programs	
		Implement effective monitoring and evaluation of	
		agriculture plans and programs	
		• Record, maintain and provide agriculture data for proper	
		planning and decision making	
		• Collect, review and submit physical and financial progress	
		report	

6. Identification of Competency Areas

The competency area is the clustering of key competencies by related behaviour and functions of each role. It comprises a set of Knowledge, Skills, and Abilities (KSA) that result in essential behaviours expected from Agriculture Supervisors. The framework has identified 9 Competency Areas as follows;

SL#	Key Role	Competency Area
1	Technical Expert	1.1. Domain knowledge
		1.2. Research skills
		1.3. Technology generation
2	Production Partner	2.1. Crop production
		2.2. Extension and communication
		2.3. Farm resource management
3	Support & Monitoring	3.1. Planning tools and approaches
		3.2. Data management
		3.3. Monitoring, evaluation and reporting

Table 2: Competency areas

7. Identification of Key Competencies

The key competency is an observable behaviour that indicates the presence of a particular competency. Generally, it is broadly divided into a core competency, leadership competency, and technical or functional competency. The framework has identified 18 Key Competencies are presented as below;

Table 3:Key Competencies

SL#	Key Roles	Competency Areas	Key Competencies
-		1.1. Domain	1.1.1. Core content knowledge in
1	Technical	knowledge	agriculture
	Expert		1.1.2. Continuous learning and
			development
		1.2. Research skills	1.2.1. Statistical data collection and analysis
			1.2.2. Research methodology
		1.3. Technology	1.3.1. Creativity and innovation
		generation	1.3.2. Cognizant of latest technologies
2		2.1. Crop	2.1.1. Crop agronomy and management
	Production	production	2.1.2. Farm inputs and support services
	Partner	2.2. Extension and	2.2.1. Training, demonstration and
		communication	advisory
			2.2.2. Stakeholder collaboration and
			engagement
		2.3. Farm resource	2.3.1. Mobilization of farm resources
		Management	2.3.2. Judicious use of limited resources
		3.1. Planning tools	3.1.1. Work planning and budgeting
		and approaches	3.1.2. Legislative and regulatory
3	Support &		frameworks
	Monitoring	3. 2. Data	3.2.1. Record keeping and inventory
		Management	3.2.2. Information and knowledge
			management
		3.3. Monitoring,	3.3.1. Monitoring of plans and programs
		evaluation and	3.3.2. Progress compilation and reporting
		reporting	

8. Identification of Behavioural Indicators

The Behavioural Indicators is the description of competencies based on various proficiency levels. It outlines a collection of desired and observable motives, traits, and behaviours when executing or carrying out the assigned task. It serves as a tool to guide evaluations of employee performance. The framework has identified 36 behavioural indicators.

Table 4: Identification of Behavioural Indicators

S1. #	Key role	Competency area	Key competency	Behavioural Indicators
1	Technical Expert	1.1 Domain knowledge	1.1.1 Core content knowledge in agriculture	 1.1.1.1 Possesses core content knowledge in relevant agriculture subjects (e.g., horticulture, plant protection, extension) to carry out effective research and development. 1.1.1.2 Understands and comprehends core content knowledge in relevant agriculture subjects for proper interpretation and application.
			1.1.2 Continuous learning and development	 1.1.2.1 Displays curiosity and interest to learn, acquire and update knowledge and skills for continuous learning and professional development. 1.1.2.2 Capitalizes on the available resources including experts and study materials for
		1.2 Research skills	1.2.1 Research methodology	 continuous learning and professional development. 1.2.1.1 Exhibits knowledge and skills on research planning and designing for conducting effective research and development. 1.2.1.2 Plans and conducts need-based research to address pertinent and existing field issues and challenges.
			1.2.2 Statistical data collection and analysis	 1.2.2.1 Possesses knowledge and skills on application of relevant statistical tools and approaches (e.g., Excel, SPSS) to carry out effective data collection and analysis. 1.2.2.2 Comprehends and interprets data and research outcomes for effective research communication, publication and application.
		1.3 Technology generation	1.3.1 Creativity and innovation	 1.3.1.1 Displays analytical and critical thinking abilities to identify and develop innovative solutions for the field problems. 1.3.1.2 Designs, operates and implements smart agricultural technologies in the field to address problems and enhance resource use efficiency and outputs.
			1.3.2 Cognizant of latest technologies	 1.3.2.1 Participates in the various scientific and professional forums to keep abreast of the latest and innovative agriculture technologies. 1.3.2.2 Disseminates innovative ideas and solutions to the farming community, relevant stakeholders and organizations for adoptions of appropriate technologies.

2	Production	2.1 Crop	2.1.1 Crop agronomy and	2.1.1.1 Possesses sound knowledge in crop agronomy, management and integrated
2	Partner	Production	management	farming system to ensure sustainable food production.
	1 artifici	Tioduction	management	2.1.1.2 Demonstrates practical skills and experiences in crop cultivation and
				management to guide and supervise farming communities for enhancing food
				production.
				2.1.2.1 Possesses knowledge and experiences on relevant agricultural inputs (e.g.,
			2.1.2 Farm inputs and	
			support services	seeds & seedlings, fertilizers) and support services (e.g., land conversion, farm
				infrastructures, farm credits) needed by the farming community to enhance food production.
				2.1.2.2 Mobilizes and facilitates need-based agricultural inputs and support services
				required by the farming community to enhance accessibility, distribution and service
				delivery.
		2.2 Extension	2.2.1 Training, demonstration	2.2.1.1 Possesses course content knowledge and skills on various extension tools to
		and	0.	
		communication	and advisory	impart intended information and skills on the specific training, demonstration and advisory programs.
		communication		2.2.1.2 Prioritizes and conducts need-based training, demonstration and advisory
				programs to the farming community and relevant stakeholders for effective
				dissemination and adoption of technologies.
			2.2.2 Stakeholder	2.2.2.1 Identifies and engages relevant stakeholders in the planning and
			collaboration and	implementation processes to achieve common goals and objectives.
				2.2.2.2 Possesses negotiation and mediation skills to influence diverse stakeholders
			engagement	for effective decision making and problem solving.
				for effective decision making and problem solving.
		2.3 Resource	2.3.1 Mobilization of farm	2.3.1.1 Develops relevant project proposals and strategies to help mobilize financial,
		Management	resources	technical and human resources essential for facilitating food production.
				2.3.1.2 Strengthens professional relationships and institutional linkages for exchange
				of skills, information and sustainable access to essential farm resources.
			2.3.2 Judicious use of limited	2.3.2.1 Encourages judicious use of limited resources of an organization to reduce
			resources	wasteful expenditures and generate maximum outcomes.
				2.3.2.2 Prioritizes and allocates resources based on emerging needs and priority of an
				organization to ensure responsible production and consumption.
3	Support &	3.1 Planning	3.1.1 Work planning and	3.1.1.1 Prepares plans and programs aligning with organisational mandates to achieve
	Monitoring	tools and	budgeting	targeted goals and objectives.
		approaches		3.1.1.2 Involves in preparing realistic work plans and budget to ensure effective
				implementation of the plans and programs of an organization.

	3.1.2 Legislative and	3.1.2.1 Displays knowledge and awareness on agriculture and other relevant policies,
	regulatory frameworks	acts, rules and regulations for proper planning and implementation.
		3.1.2.2 Conducts sensitization of agriculture policies, acts, rules and regulations to the
		farming community and relevant stakeholders for compliance and enforcement.
3. 2 Data	3.2.1 Record keeping and	3.2.1.1 Possess knowledge and skills on application of relevant ICT tools such as
Management	inventory	excel and other database software to compile and record the relevant organizational
		information.
		3.2.1.2 Displays ability to regularly record and update database of an organization
		such as office equipment, tools, infrastructures and other assets for proper tracking
		and inventory.
	3.2.2 Information and	3.2.2.1 Participates in creating, sharing, using and managing the knowledge and
	knowledge management	information of an organisation.
		3.2.2.2 Initiates digitization of relevant agriculture knowledge and information such as
		research publication and other study materials for effective archiving, accessibility and
		distribution.
3.3 Monitoring,	3.3.1 Monitoring of plans and	3.3.1.1 Possesses knowledge and skills on application of relevant M&E tools to carry
evaluation and	0 1	out effective monitoring and assessment of the plans and programs.
reporting		3.3.1.2 Conducts timely monitoring and evaluation of the plans and programs for
		effective review, recommendation and reporting.
	3.3.2 Progress compilation	3.3.2.1 Conducts proper review and analysis of organizational work plans and budgets
	6 1	for proper understanding and assessment of the progress.
	1 0	3.3.2.2 Conducts timely collection, compilation and reporting of physical and
		financial progress for effective information sharing and decision making.
	Management 3.3 Monitoring,	3. 2 Data 3.2.1 Record keeping and inventory Management 3.2.1 Record keeping and inventory 3.2.2 Information and knowledge management 3.3 Monitoring, evaluation and programs

9. Classification of Proficiency Levels

The proficiency level is categorized based on the level of expertise. It describes the levels of competency required to perform a specific job successfully. There is a progression of proficiencies at each level. The proficiency level of Agriculture Supervisors is categorized into three levels i) Foundation (S2), ii) Experienced (S1) and iii) Advanced (SS4-SS1). The framework has identified 36 behavioural indicators across three levels of proficiency.

The proficiency will enable individual officials to distinguish the type of competencies expected in their career path, which will allow them to enhance competency in achieving current as well future career goals. As the officials in position level SS4-SS1 play similar roles, their proficiency levels are merged. Further, the proficiency level will set a benchmark for recruitment and deployment. The proficiency levels of each key competency are detailed below:

Table 5: Proficiency Levels

Key Role: 1. Technical Expert						
Competency Area: 1.1. Domain Knowledge						
Key Competency: 1.1.1 Core content knowledge in agriculture						
Behaviour Indicator	Experienced	Advanced				
	(82)	(\$1)	(SS4-SS1)			
1.1.1.1 Possesses core content knowledge in relevant	Possesses basic knowledge in	Possesses sound knowledge in	Possesses high level knowledge			
agriculture subjects (e.g., horticulture, post-harvest,	relevant agriculture subjects	relevant agriculture subjects	in relevant agriculture subjects			
plant protection) to carry out effective research and	(e.g., horticulture, post-harvest,	(e.g., horticulture, post-harvest,				
development.	plant protection) to carry out	plant protection) to carry out	plant protection) to carry out			
	effective research and	effective research and	effective research and			
	development.	development.	development.			
1.1.1.2 Understands and comprehends core content	Understands and comprehends	Understands and comprehends	Understands and comprehends			
knowledge in relevant agriculture subjects for proper	basic content knowledge in	sound content knowledge in	in-depth content knowledge in			
interpretation and application.	relevant agriculture subjects	relevant agriculture subjects	relevant agriculture subjects for			
	for proper interpretation and	for proper interpretation and	proper interpretation and			
	application.	application.	application.			
Key Competency: 1.1.2. Continuous learning and d	evelopment					
Behaviour Indicator	Foundation	Experienced	Advanced			
	(82)	(\$1)	(\$\$4-\$\$1)			

1.1.2.1 Displays curiosity and interest to learn, acquire and update knowledge and skills for continuous learning and professional development.	Displays interest, curiosity and engages in basic learnings for professional development	Displays interest, curiosity and engages in more complex learning for professional development		
1.1.2.2 Capitalizes on the available resources including experts and study materials for continuous learning and professional development.	Capitalizes on the available resources including experts and study materials for continuous learning on basic knowledge and skills for professional development	Capitalizes on the available resources including experts and study materials for continuous learning on in- depth knowledge and skills for professional development	Capitalizes on the available resources including experts and study materials for continuous learning on complex knowledge and skills for professional development	
Competency area: 1.2. Research Skills				
Key Competency:1.2.1. Research methodology Behaviour Indicator	Foundation (S2)	Experienced (S1)	Advanced (SS4-SS1)	
1.2.1.1 Exhibits knowledge and skills on research planning and designing for conducting effective research and development.	Exhibits basic knowledge and Exhibits knowledge knowledge I skills on research planning and and skills on research planning s designing for conducting and designing for conducting of effective research and effective research and		Exhibits sound knowledge and skills on research planning and designing for conducting effective research and development.	
1.2.1.2 Plans and conducts need-based research to address pertinent and existing field issues and challenges.	PlansandconductsbasicPlansand conductsneed-basedIresearchtoaddresspertinentadvanceresearchtoaddressaandexistingfieldissuesandexistingfieldfieldfieldchallenges.issuesandchallenges.a		Plans and conducts advanced and complex need-based research to address pertinent and existing field issues and challenges.	
Key Competency: 1.2.2. Statistical data collection a				
Behaviour Indicator	Foundation (S2)	Experienced (S1)	Advanced (SS4-SS1)	
1.2.2.1 Possesses knowledge and skills on application of relevant statistical tools and approaches (e.g., Excel, SPSS) to carry out effective data collection and analysis	Understands basic application of relevant statistical tools and approaches (e.g., Excel, SPSS) to carry out effective data collection and analysis.	Exhibits knowledge and skills on application of relevant statistical tools and approaches (e.g., Excel, SPSS) to carry out effective data collection and analysis.	Exhibits sound knowledge and skills on application of relevant statistical tools and approaches (e.g., Excel, SPSS) to carry out effective data collection and analysis.	
1.2.2.2 Comprehends and interprets data and research outcomes for effective research communication, publication and application	Demonstratesbasicdatainterpretationskillsforeffectiveresearchcommunicationand	Demonstratesbasicdataandresearchoutcomesinterpretationskillsforeffectiveresearch	Demonstrates data and research outcomes interpretation skills for effective research communication, publication and	

	application	communication, publication	application			
		and application				
Competency area: 1.3. Technology generation						
Key Competency: 1.3.1. Creativity and innovation						
Behaviour Indicator	Foundation (S2)	Experienced (S1)	Advanced (SS4-SS1)			
1.3.1.1 Displays analytical and critical thinking abilities to identify and develop innovative solutions for the field problems	Displays basic analytical and critical thinking abilities to identify and develop innovative solutions for the field problems.	Displays sound analytical and critical thinking abilities to identify and develop innovative solutions for the field problems.	Displays sound analytical and critical thinking abilities to identify and develop innovative solutions for the field problems.			
1.3.1.2 Designs, operates and implements smart agricultural technologies in the field to address problems and enhance resource use efficiency and outputs	Designs, operates and implements basic smart agricultural technologies in the field to address problems and enhance resource use efficiency and outputs	Designs, operates and implements complex smart agricultural technologies in the field to address problems and enhance resource use efficiency and outputs	Designs, operates and implements advanced and complex smart agricultural technologies in the field to address problems and enhance resource use efficiency and outputs			
Key Competency: 1.3.2. Cognizant of latest technol	ogies					
Behaviour Indicator	Foundation (S2)	Experienced (S1)	Advanced (SS4-SS1)			
1.3.2.1 Participates in the various scientific and professional forums to keep abreast of the latest and innovative agriculture technologies	Possesses basic skills and experiences to participate in various scientific and professional forum	d Possesses adequate skills and experiences to participate in vario in scientific and professional forum				
1.3.2.2 Disseminates innovative ideas and solutions to the farming community, relevant stakeholders and organizations for adoptions of appropriate technologies	Disseminates basic ideas and solutions to the farming community, relevant stakeholders and organizations for adoptions of appropriate technologies	Disseminates innovative ideas and solutions to the farming community, relevant stakeholders and organizations for adoptions of appropriate technologies	relevant stakeholders and			
Key role: 2. Production Partner						
Competency Area: 2.1. Crop Production						
Key Competency: 2.1.1. Crop agronomy and manage	gement					
Behaviour Indicator	Foundation (S2)	Experienced (S1)	Advanced (SS4-SS1)			

2.1.1.1 Possesses sound knowledge in crop agronomy,	Possesses basic knowledge in	Possesses sound knowledge in	Possesses advanced knowledge
management and integrated farming system to ensure	crop agronomy, management	crop agronomy, management	in crop agronomy, management
sustainable food production.	and integrated farming system	and integrated farming system	and integrated farming system
sustainaste rood production.	to ensure sustainable food	to ensure sustainable food	to ensure sustainable food
	production.	production.	production.
2.1.1.2 Demonstrates practical skills and experiences	Demonstrates basic practical	Demonstrates sound practical	Demonstrates advanced
in crop cultivation and management to guide and	skills in crop cultivation and	skills and experiences in crop	practical skills and experiences
supervise farming communities for enhancing food	management to guide and	cultivation and management to	in crop cultivation and
production	supervise farming	guide and supervise farming	management to guide and
production	communities for enhancing	communities for enhancing	supervise farming communities
	food production	food production	for enhancing food production
Key Competency: 2.1.2. Farm inputs and support s		1004 production	for emiliatening food production
Behaviour Indicator	Foundation	Experienced	Advanced
	(82)	(\$1)	(SS4-SS1)
2.1.2.1 Possesses sound knowledge in relevant	Possesses basic knowledge in	Possesses sound knowledge in	Possesses high level knowledge
agriculture support services for effective service	relevant agriculture support	relevant agriculture support	in relevant agriculture support
delivery	services for effective service	services for effective service	services for effective service
	delivery	delivery	delivery
2.1.2.2 Provides appropriate agriculture support	Provides agriculture support	Provides appropriate	Provides appropriate agriculture
services based on needs for effective service delivery	services based on needs for	agriculture support services	support services based on needs
	effective service delivery with	based on needs for effective	for effective service delivery and
	supervision	service delivery without	provide guidance to the
		supervision	subordinates
Competency Area: 2.2. Extension and communica			
Key Competency Area: 2.2.1. Training, demonstrat			
Behaviour Indicator	Foundation (S2)	Experienced (S1)	Advanced (SS4-SS1)
2.2.1.1 Possesses course content knowledge and skills	Possesses basic course content	Possesses sound content	Possesses in-depth course
on various extension tools to impart intended	knowledge and skills on	knowledge and skills on	content knowledge and skills on
information and skills on the specific training,	various extension tools to	various extension tools to	various extension tools to
demonstration and advisory programs	impart intended information	impart intended information	impart intended information
	and skills on the specific	and skills on the specific	and skills on the specific
	training, demonstration and	training, demonstration and	training, demonstration and
	advisory programs	advisory programs	advisory programs
2.2.1.2 Prioritizes and conducts need-based training,	Conducts basic need-based		based training, demonstration and
demonstration and advisory programs to the farming	training, demonstration and		rming community and relevant
community and relevant stakeholders for effective	advisory programs to the	stakeholders for effective d	issemination and adoption of

dissemination and adoption of technologies	farming community and	technologies.					
	relevant stakeholders						
	Key Competency: 2.2.2. Stakeholder collaboration and engagement						
Behaviour Indicator	Foundation	Experienced	Advanced				
	(82)	(\$1)	(SS4-SS1)				
2.2.2.1 Identifies and engages relevant stakeholders in	Identifies and engages relevant	Identifies and engages relevant	Identifies and engages relevant				
the planning and implementation processes to achieve	stakeholders in the planning	stakeholders in the planning	stakeholders in the planning and				
common goals and objectives.	and implementation processes	and implementation processes	implementation processes to				
	to achieve common goals and	to achieve common goals and	achieve common goals and				
	objectives under supervision	objectives without supervision	objectives and provide				
			guidance/expertise to the				
		D. 1	subordinates				
2.2.2.2 Possesses negotiation and mediation skills to	Possesses basic negotiation and mediation skills to	Possesses sound negotiation and mediation skills to	Possesses high level negotiation				
influence diverse stakeholders for effective decision	and mediation skills to influence diverse stakeholders	and mediation skills to influence diverse stakeholders	and mediation skills to influence diverse stakeholders for				
making and problem solving.	for effective decision	for effective decision	effective decision and also				
	for effective decision	for effective decision					
Competency Area: 2.3. Farm resource managemen	<u>↓</u>		provide expert guidance				
Key Competency: 2.3.1. Mobilization of farm resource							
Key Competency . 2.3.1. Woomzation of farm resou	1005						
		Experienced	Advanced				
Behaviour Indicator	Foundation (S2)	Experienced (S1)	Advanced (SS4-SS1)				
	Foundation		(SS4-SS1)				
Behaviour Indicator	Foundation (S2)	(\$1)					
Behaviour Indicator 2.3.1.1 Develops relevant project proposals and	Foundation (S2) Develops need-based project	(S1) Develops a robust need-based	(SS4-SS1) Develops a robust need-based				
Behaviour Indicator 2.3.1.1 Develops relevant project proposals and strategies to help mobilize financial, technical and human resources essential for facilitating food production	Foundation (S2) Develops need-based project proposals for resource mobilization with guidance	(S1) Develops a robust need-based project proposals for resource	(SS4-SS1) Develops a robust need-based project proposals and strategies				
Behaviour Indicator2.3.1.1 Develops relevant project proposals and strategies to help mobilize financial, technical and human resources essential for facilitating food production2.3.1.2 Strengthens professional relationships and	Foundation (S2) Develops need-based project proposals for resource mobilization with guidance Displays basic knowledge and	(S1) Develops a robust need-based project proposals for resource mobilization independently Demonstrates adequate skills	(SS4-SS1) Develops a robust need-based project proposals and strategies for resource mobilization and also provide expert guidance Exhibits high level of skills and				
Behaviour Indicator2.3.1.1 Develops relevant project proposals and strategies to help mobilize financial, technical and human resources essential for facilitating food production2.3.1.2 Strengthens professional relationships and institutional linkages for exchange of skills,	Foundation (S2) Develops need-based project proposals for resource mobilization with guidance Displays basic knowledge and experience in maintaining	(S1) Develops a robust need-based project proposals for resource mobilization independently Demonstrates adequate skills and experience in maintaining	(SS4-SS1) Develops a robust need-based project proposals and strategies for resource mobilization and also provide expert guidance Exhibits high level of skills and experience in maintaining				
Behaviour Indicator2.3.1.1 Develops relevant project proposals and strategies to help mobilize financial, technical and human resources essential for facilitating food production2.3.1.2 Strengthens professional relationships and	Foundation (S2) Develops need-based project proposals for resource mobilization with guidance Displays basic knowledge and experience in maintaining professional relationships and	(S1) Develops a robust need-based project proposals for resource mobilization independently Demonstrates adequate skills and experience in maintaining professional relationships and	(SS4-SS1) Develops a robust need-based project proposals and strategies for resource mobilization and also provide expert guidance Exhibits high level of skills and experience in maintaining professional relationships and				
Behaviour Indicator2.3.1.1 Develops relevant project proposals and strategies to help mobilize financial, technical and human resources essential for facilitating food production2.3.1.2 Strengthens professional relationships and institutional linkages for exchange of skills,	Foundation (S2) Develops need-based project proposals for resource mobilization with guidance Displays basic knowledge and experience in maintaining professional relationships and institutional linkages for	(S1) Develops a robust need-based project proposals for resource mobilization independently Demonstrates adequate skills and experience in maintaining professional relationships and institutional linkages for	(SS4-SS1) Develops a robust need-based project proposals and strategies for resource mobilization and also provide expert guidance Exhibits high level of skills and experience in maintaining professional relationships and institutional linkages for				
Behaviour Indicator 2.3.1.1 Develops relevant project proposals and strategies to help mobilize financial, technical and human resources essential for facilitating food production 2.3.1.2 Strengthens professional relationships and institutional linkages for exchange of skills, information and sustainable access to essential farm	Foundation (S2) Develops need-based project proposals for resource mobilization with guidance Displays basic knowledge and experience in maintaining professional relationships and institutional linkages for exchange of skills, information	(S1) Develops a robust need-based project proposals for resource mobilization independently Demonstrates adequate skills and experience in maintaining professional relationships and institutional linkages for exchange of skills, information	(SS4-SS1) Develops a robust need-based project proposals and strategies for resource mobilization and also provide expert guidance Exhibits high level of skills and experience in maintaining professional relationships and institutional linkages for exchange of skills, information				
Behaviour Indicator 2.3.1.1 Develops relevant project proposals and strategies to help mobilize financial, technical and human resources essential for facilitating food production 2.3.1.2 Strengthens professional relationships and institutional linkages for exchange of skills, information and sustainable access to essential farm	Foundation (S2) Develops need-based project proposals for resource mobilization with guidance Displays basic knowledge and experience in maintaining professional relationships and institutional linkages for exchange of skills, information and sustainable access to	(S1) Develops a robust need-based project proposals for resource mobilization independently Demonstrates adequate skills and experience in maintaining professional relationships and institutional linkages for exchange of skills, information and sustainable access to	(SS4-SS1) Develops a robust need-based project proposals and strategies for resource mobilization and also provide expert guidance Exhibits high level of skills and experience in maintaining professional relationships and institutional linkages for exchange of skills, information and sustainable access to				
Behaviour Indicator 2.3.1.1 Develops relevant project proposals and strategies to help mobilize financial, technical and human resources essential for facilitating food production 2.3.1.2 Strengthens professional relationships and institutional linkages for exchange of skills, information and sustainable access to essential farm resources	Foundation (S2) Develops need-based project proposals for resource mobilization with guidance Displays basic knowledge and experience in maintaining professional relationships and institutional linkages for exchange of skills, information and sustainable access to essential farm resources	(S1) Develops a robust need-based project proposals for resource mobilization independently Demonstrates adequate skills and experience in maintaining professional relationships and institutional linkages for exchange of skills, information	(SS4-SS1) Develops a robust need-based project proposals and strategies for resource mobilization and also provide expert guidance Exhibits high level of skills and experience in maintaining professional relationships and institutional linkages for exchange of skills, information				
Behaviour Indicator 2.3.1.1 Develops relevant project proposals and strategies to help mobilize financial, technical and human resources essential for facilitating food production 2.3.1.2 Strengthens professional relationships and institutional linkages for exchange of skills, information and sustainable access to essential farm resources Key Competency: 2. 3.2. Judicious use of limited resources	Foundation (S2) Develops need-based project proposals for resource mobilization with guidance Displays basic knowledge and experience in maintaining professional relationships and institutional linkages for exchange of skills, information and sustainable access to essential farm resources	(S1) Develops a robust need-based project proposals for resource mobilization independently Demonstrates adequate skills and experience in maintaining professional relationships and institutional linkages for exchange of skills, information and sustainable access to essential farm resources	(SS4-SS1) Develops a robust need-based project proposals and strategies for resource mobilization and also provide expert guidance Exhibits high level of skills and experience in maintaining professional relationships and institutional linkages for exchange of skills, information and sustainable access to essential farm resources				
Behaviour Indicator 2.3.1.1 Develops relevant project proposals and strategies to help mobilize financial, technical and human resources essential for facilitating food production 2.3.1.2 Strengthens professional relationships and institutional linkages for exchange of skills, information and sustainable access to essential farm resources	Foundation(S2)Develops need-based projectproposalsforresourcemobilization with guidanceDisplays basic knowledge andexperiencein maintainingprofessional relationships andinstitutional linkages forexchange of skills, informationand sustainable access toessential farm resourcessourcesFoundation	(S1) Develops a robust need-based project proposals for resource mobilization independently Demonstrates adequate skills and experience in maintaining professional relationships and institutional linkages for exchange of skills, information and sustainable access to essential farm resources Experienced	(SS4-SS1) Develops a robust need-based project proposals and strategies for resource mobilization and also provide expert guidance Exhibits high level of skills and experience in maintaining professional relationships and institutional linkages for exchange of skills, information and sustainable access to essential farm resources				
Behaviour Indicator 2.3.1.1 Develops relevant project proposals and strategies to help mobilize financial, technical and human resources essential for facilitating food production 2.3.1.2 Strengthens professional relationships and institutional linkages for exchange of skills, information and sustainable access to essential farm resources Key Competency: 2. 3.2. Judicious use of limited references	Foundation (S2) Develops need-based project proposals for resource mobilization with guidance Displays basic knowledge and experience in maintaining professional relationships and institutional linkages for exchange of skills, information and sustainable access to essential farm resources essential farm resources Esources Foundation (S2)	(S1) Develops a robust need-based project proposals for resource mobilization independently Demonstrates adequate skills and experience in maintaining professional relationships and institutional linkages for exchange of skills, information and sustainable access to essential farm resources Experienced (S1)	(SS4-SS1) Develops a robust need-based project proposals and strategies for resource mobilization and also provide expert guidance Exhibits high level of skills and experience in maintaining professional relationships and institutional linkages for exchange of skills, information and sustainable access to essential farm resources				
Behaviour Indicator 2.3.1.1 Develops relevant project proposals and strategies to help mobilize financial, technical and human resources essential for facilitating food production 2.3.1.2 Strengthens professional relationships and institutional linkages for exchange of skills, information and sustainable access to essential farm resources Key Competency: 2. 3.2. Judicious use of limited resources	Foundation(S2)Develops need-based projectproposalsforresourcemobilization with guidanceDisplays basic knowledge andexperiencein maintainingprofessional relationships andinstitutional linkages forexchange of skills, informationand sustainable access toessential farm resourcessourcesFoundation	(S1) Develops a robust need-based project proposals for resource mobilization independently Demonstrates adequate skills and experience in maintaining professional relationships and institutional linkages for exchange of skills, information and sustainable access to essential farm resources Experienced	(SS4-SS1) Develops a robust need-based project proposals and strategies for resource mobilization and also provide expert guidance Exhibits high level of skills and experience in maintaining professional relationships and institutional linkages for exchange of skills, information and sustainable access to essential farm resources				

and generate maximum outcomes 2.3.2.2 Prioritizes and allocates resources based on emerging needs and priority of an organization to ensure responsible production and consumption	of plans and programs with maximum outcomes under guidance Possesses limited knowledge and experience in prioritization and allocation of resources	of plans and programs without supervision Possesses sound knowledge and experience in prioritization and allocation of resources	plans and programs and also provide expert guidance Possesses in-depth knowledge and experience in prioritization, allocation of resources and also provide expert guidance
Key role: 3. Support and Monitoring			provide expert guidance
Competency Area:3.1. Planning tools and approach	nes		
Key Competency:3.1.1. Work planning and budgeti			
Behaviour Indicator	Foundation (S2)	Experienced (S1)	Advanced (SS4-SS1)
3.1.1.1 Prepares plans and programs aligning with organisational mandates to achieve target goals and objectives	Develops plans and programs aligning with organisational mandates, targets and objectives	Develops robust plans and programs aligning with organisational mandates, targets and objectives	Develops robust plans and programs aligning with organisational mandates, targets and objectives and also provide expert guidance
 3.1.1.2 Involves in preparing realistic work plans and budget to ensure effective implementation of the plans and programs of an organization Key Competency: 3.1.2. Legislative and regulatory 	Possesses basic knowledge and experience on work planning and budgeting	Possesses sound knowledge and experience on work planning and budgeting	Possesses in-depth knowledge and experience on work planning and budgeting
Behaviour Indicator	Foundation	Experienced	Advanced
	(S2)	(\$1)	(\$\$4-\$\$1)
3.1.2.1 Displays knowledge and awareness on agriculture and other relevant policies, acts, rules and regulations for proper planning and implementation	Possesses basic knowledge and awareness on agriculture and other relevant policies, acts, rules and regulations	Possesses sound knowledge and awareness on agriculture and other relevant policies, acts, rules and regulations	Possesses in-depth knowledge and awareness on agriculture and other relevant policies, acts, rules and regulations
3.1.2.2 Conducts sensitization of agriculture policies, acts, rules and regulations to the farming community and relevant stakeholders for compliance and enforcement	Conducts sensitization of agriculture policies, acts, rules and regulations to the farming community and relevant stakeholders under guidance	Conducts sensitization of agriculture policies, acts, rules and regulations to the farming community and relevant stakeholders effectively without guidance	Conducts sensitization of agriculture policies, acts, rules and regulations to the farming community and relevant stakeholders effectively and also provides expert guidance
Competency Area: 3. 2. Data management Key Competency:3.2.1. Record keeping and inventor	ory		

Behaviour Indicator	Foundation	Experienced	Advanced	
	(82)	(\$1)	(SS4-SS1)	
3.2.1.1 Possess knowledge and skills on application of	Possess basic knowledge and	Possess sound knowledge and	skills on application of relevant	
relevant ICT tools such as Excel and other database	skills on application of relevant			
software to compile and record the relevant	ICT tools and other database	relevant organizational information		
organizational information	software to compile and	1		
	record the relevant	ıt		
	organizational information			
3.2.1.2 Displays ability to regularly record and update	Displays ability to regularly	Displays ability to regularly	Displays ability to regularly	
data-base of an organization such as office	record and update data-base of	record and update data-base of	record and update data-base of	
equipment, tools, infrastructures and other assets for	an organization such as office	an organization such as office	an organization such as office	
proper tracking and inventory	equipment, tools,	equipment, tools,	equipment, tools, infrastructures	
	infrastructures and other assets	infrastructures and other assets	and other assets for proper	
	for proper tracking and	for proper tracking and	tracking and inventory and also	
	inventory under guidance	inventory without guidance	provide expert guidance	
Key Competency:3.2.2. Information and knowledg				
Behaviour Indicator	Foundation	Experienced	Advanced	
	(82)	(S1)	(SS4-SS1)	
3.2.2.1 Participates in creating, sharing, using and	Possesses basic knowledge and		d skills on creating, sharing, using	
managing the knowledge and information of an	skills on creating, sharing,	and managing the knowledge an	d information of an organisation	
organisation	using and managing the			
	knowledge and information of			
	an organisation			
3.2.2.2 Initiates digitization of relevant agriculture	Engages in digitization of	Engages in digitization of	Engages in digitization of	
knowledge and information such as research	relevant agriculture knowledge	relevant agriculture knowledge	relevant agriculture knowledge	
publication and other study materials for effective	and information such as	and information such as	and information such as	
archiving, accessibility and distribution	research publication and other	research publication and other	research publication and other	
	study materials for effective	study materials for effective	study materials for effective	
	archiving, accessibility and	archiving, accessibility and	archiving, accessibility and	
	distribution under supervision	distribution without guidance distribution and also pro		
	and guidance	guidance		
Competency Area: 3.3. Monitoring, evaluation and				
Key Competency:3.3.1. Monitoring of plans and pr				
Behaviour Indicator	Foundation	Experienced	Advanced	
	(82)	(\$1)	(SS4-SS1)	
3.3.1.1 Possesses knowledge and skills on application	0	0	Possesses in-depth knowledge	
of relevant M&E tools to carry out effective	all'ille aux ann l'actions of unlangest		and skills on application of	

monitoring and assessment of the plans and programs 3.3.1.2 Conducts timely monitoring and evaluation of the plans and programs for effective review, recommendation and reporting	M&E tools to carry out effective monitoring and assessment of the plans and programs Conducts timely monitoring and evaluation of the plans and programs for effective review, recommendation and reporting under guidance	relevant M&E tools to carry out effective monitoring and assessment of the plans and programs Conducts timely monitoring and evaluation of the plans and programs for effective review, recommendation and reporting without supervision	relevant M&E tools to carry out effective monitoring and assessment of the plans and programs Conducts timely monitoring and evaluation of the plans and programs for effective review, recommendation and reporting and also provide guidance
Key Competency: 3.3.2. Progress compilation and	· · ·		
Behaviour Indicator	Foundation (S2)	Experienced (S1)	Advanced (SS4-SS1)
3.3.2.1 Conducts proper review and analysis of organizational work plans and budgets for proper understanding and assessment of the progress	Conducts review and analysis of organizational work plans and budgets for proper understanding and assessment	Conducts proper review and analysis of organizational work plans and budgets for proper understanding and assessment	Conducts proper review and analysis of organizational work plans and budgets for proper understanding and assessment
	of the progress under guidance	of the progress without guidance	of the progress, and also provides guidance

10. Training Needs Analysis

The Training Needs are the difference between desired capability and current capability. The Training Needs Analysis is the process of recognizing the skills gap and needs of training. It is the procedure to determine whether the training will bring out the solution to the problem. It ensures that training is targeting the correct competencies, the correct employees, and the needs of the Department. The training can reduce, if not eliminate, the gap by equipping the Agriculture Supervisors 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 interviews, surveys, and focus group discussions. The questionnaire consists of both closed and open-ended questions. The questionnaire is based on 36 behavioural indicators of different proficiency levels on the Likert Scale of "Competent" and "Not Competent" followed by open-ended questions asking the likely reasons for 'Not Competent" and suggesting interventions to address the gap. The behavioural indicators were assessed by proficiency level to identify the performance gaps.

Key Role: Technic	Key Role: Technical Expert					
Key competency	Behaviour Indicator	Current performance (Competent or Not competent)	Likely reasons for performance gaps	Method of Intervention		
1.1.1 Core content knowledge in agriculture	1.1.1.1 Possesses core content knowledge in relevant agriculture subjects (e.g., horticulture, post-harvest, plant protection) to carry out effective research and development.	Competent				
	1.1.1.2 Understands and comprehends core content knowledge in relevant agriculture subjects for proper interpretation and application.	Not Competent	Limited domain knowledge, skills and experience	STT & OJT		
1.1.2 Continuous learning and development	1.1.2.1 Displays curiosity and interest to learn, acquire and update knowledge and skills for continuous learning and professional development.	Competent				
	1.1.2.2 Capitalizes on the available resources including experts and study materials for continuous learning and professional development.	Competent				
1.2.1 Research methodology	1.2.1.1 Exhibits knowledge and skills on research planning and designing for conducting effective research and development.	Not Competent	Limited knowledge and skills in R&D	STT, workshops, mentoring		
	1.2.1.2 Plans and conducts need-based research to address pertinent and existing field issues and challenges.	Not Competent	Limited knowledge and skills in R&D	STT, Workshop, OJT & Mentoring		

Table 6: Training Needs Assessment for Foundation level(S2)

1.2.2 Statistical data collection and analysis	1.2.2.1 Possesses knowledge and skills on application of relevant statistical tools and approaches (e.g., Excel, SPSS) to carry out effective data collection and analysis.	Not Competent	Limited of knowledge and skills on application of statistical tools	STT, OJT & Mentoring
	1.2.2.2 Comprehends and interprets data and research outcomes for effective research communication, publication and application.	Not Competent	Limited knowledge and skills on application of statistical tools	STT, OJT & Mentoring
1.3.1 Creativity and innovation	1.3.1.1 Displays analytical and critical thinking abilities to identify and develop innovative solutions for the field problems.	Competent		
	1.3.1.2 Designs, operates and implements smart agricultural technologies in the field to address problems and enhance resource use efficiency and outputs.	Not Competent	Lack of interest, skills and exposure in learning new ideas	STT & Workshops
1.3.2 Cognizant of latest technologies	1.3.2.1 Participates in the various scientific and professional forums to keep abreast of the latest and innovative agriculture technologies.	Competent		
	1.3.2.2 Disseminates innovative ideas and solutions to the farming community, relevant stakeholders and organizations for adoptions of appropriate technologies.	Not Competent	Limited knowledge skills and experience	STT, OJT, Workshop & Mentoring
Key Role: Product			_	
Key competency	Behaviour Indicator	Current performance (Competent or Not competent)	Likely reasons for performance gaps	Method of Intervention
2.1.1 Crop agronomy and management	2.1.1.1 Possesses sound knowledge in crop agronomy, management and integrated farming system to ensure sustainable food production.	Not competent	Limited domain knowledge	STT
	2.1.1.2 Demonstrates practical skills and experiences in crop cultivation and management to guide and supervise farming communities for enhancing food production.	Not competent	limited skills and experience in crop cultivation technologies	STT, OJT & Mentoring
2.1.2 Farm inputs and support services	2.1.2.1 Possesses knowledge and experiences on relevant agricultural inputs (e.g., seeds & seedlings, fertilizers) and support services (e.g., land conversion, farm infrastructures, farm credits) needed by the farming community to enhance food production.	Competent		
	2.1.2.2 Mobilizes and facilitates need-based agricultural inputs and support services required by the farming community to enhance	Not Competent	Limited skills and experience in farm	OJT & Mentoring

	accessibility, distribution and service delivery.		input mobilization	
2.2.1 Training, demonstration and	2.2.1.1 Possesses course content knowledge and skills on various extension tools to impart intended information and skills on the specific training, demonstration and advisory programs.	Not competent	Limited knowledge and skills in extension tools	STT & Mentoring
advisory	2.2.1.2 Prioritizes and conducts need-based training, demonstration and advisory programs to the farming community and relevant stakeholders for effective dissemination and adoption of technologies.	Competent		
2.2.2 Stakeholder collaboration and	2.2.2.1 Identifies and engages relevant stakeholders in the planning and implementation processes to achieve common goals and objectives.	Competent		
engagement	2.2.2 Possesses negotiation and mediation skills to influence diverse stakeholders for effective decision making and problem solving.	Not competent	Limited communication skills	Workshop & Mentoring
2.3.1 Mobilization of farm resources	2.3.1.1 Develops relevant project proposals and strategies to help mobilize financial, technical and human resources essential for facilitating food production.	Not competent	Limited knowledge and skills in developing project proposals	STT & Mentoring
	2.3.1.2 Strengthens professional relationships and institutional linkages for exchange of skills, information and sustainable access to essential farm resources.	Not competent	Limited knowledge and experience	Mentoring
2.3.2 Judicious use of limited	2.3.2.1 Encourages judicious use of limited resources of an organization to reduce wasteful expenditures and generate maximum outcomes.	Competent		
resources	2.3.2.2 Prioritizes and allocates resources based on emerging needs and priority of an organization to ensure responsible production and consumption.	Competent		
Key Role: Support				
Key competency	Behaviour Indicator	Current performance (Competent or Not competent)	Likely reasons for performance gaps	Method of Intervention
3.1.1 Work	3.1.1.1 Prepares plans and programs aligning with organisational mandates to achieve targeted goals and objectives.	Competent		
planning and budgeting	3.1.1.2 Involves in preparing realistic work plans and budget to ensure effective implementation of the plans and programs of an organization.	Not Competent	Limited knowledge and experience in planning	Workshop & Mentoring

3.1.2 Legislative and regulatory	3.1.2.1 Displays knowledge and awareness on agriculture and other relevant policies, acts, rules and regulations for proper planning and implementation.	Competent		
frameworks	3.1.2.2 Conducts sensitization of agriculture policies, acts, rules and regulations to the farming community and relevant stakeholders for compliance and enforcement.	Competent		
3.2.1 Record keeping and	3.2.1.1 Possess knowledge and skills on application of relevant ICT tools such as Excel and other database software to compile and record the relevant organizational information.	Not Competent	Limited knowledge and skills in ICT	STT & Mentoring
inventory	3.2.1.2 Displays ability to regularly record and update databases of an organization such as office equipment, tools, infrastructures and other assets for proper tracking and inventory.	Competent		
3.2.2 Information and knowledge	3.2.2.1 Participates in creating, sharing, using and managing the knowledge and information of an organisation.	Not Competent	Limited skills in knowledge management	STT, Workshop & Mentoring
management	3.2.2.2 Initiates digitization of relevant agriculture knowledge and information such as research publication and other study materials for effective archiving, accessibility and distribution.	Not Competent	Limited knowledge and skills in digitizing agriculture	STT & OJT
3.3.1 Monitoring of plans and programs	3.3.1.1 Possesses knowledge and skills on application of relevant M&E tools to carry out effective monitoring and assessment of the plans and programs.	Not Competent	Limited knowledge and skills in monitoring and evaluation	STT & Workshop
	3.3.1.2 Conducts timely monitoring and evaluation of the plans and programs for effective review, recommendation and reporting.	Not Competent	Limited knowledge and skills in monitoring and evaluation	STT, Workshop & Mentoring
3.3.2 Progress compilation and reporting	3.3.2.1 Conducts proper review and analysis of organizational work plans and budgets for proper understanding and assessment of the progress.	Not Competent	Limited skills in reviewing and analysing work plan and budget	Workshop & Mentoring
	3.3.2.2 Conducts timely collection, compilation and reporting of physical and financial progress for effective information sharing and decision making.	Competent		

Key competency	Behaviour Indicator	Current performance (Competent or Not competent)	Likely reasons for performance gaps	Method of Intervention
1.1.1 Core content knowledge in agriculture	1.1.1.1 Possesses core content knowledge in relevant agriculture subjects (e.g., horticulture, post-harvest, plant protection) to carry out effective research and development.	Competent		
	1.1.1.2 Understands and comprehends core content knowledge in relevant agriculture subjects for proper interpretation and application.	Competent		
1.1.2 Continuous learning and development	1.1.2.1 Displays curiosity and interest to learn, acquire and update knowledge and skills for continuous learning and professional development.	Competent		
	1.1.2.2 Capitalizes on the available resources including experts and study materials for continuous learning and professional development.	Competent		
1.2.1 Research methodology	1.2.1.1 Exhibits knowledge and skills on research planning and designing for conducting effective research and development.	Not Competent	Limited knowledge and skills in R&D	STT, Workshop & Mentoring
	1.2.1.2 Plans and conducts need-based research to address pertinent and existing field issues and challenges.	Competent		
1.2.2 Statistical data collection and analysis	1.2.2.1 Possesses knowledge and skills on application of relevant statistical tools and approaches (e.g., Excel, SPSS) to carry out effective data collection and analysis.	Not competent	Limited of knowledge and skills on application of statistical tools	STT, OJT & Mentoring
	1.2.2.2 Comprehends and interprets data and research outcomes for effective research communication, publication and application.	Not competent	Limited knowledge and skills on application of statistical tools	STT, OJT & Mentoring
1.3.1 Creativity and innovation	1.3.1.1 Displays analytical and critical thinking abilities to identify and develop innovative solutions for the field problems.	Competent		
	1.3.1.2 Designs, operates and implements smart agricultural technologies in the field to address problems and enhance resource use efficiency and outputs.	Not competent	Lack of interest, skills and exposure in learning new ideas	STT & Workshop
1.3.2 Cognizant of	1.3.2.1 Participates in the various scientific and professional	Competent		

latest technologies	forums to keep abreast of the latest and innovative agriculture technologies.			
	1.3.2.2 Disseminates innovative ideas and solutions to the farming community, relevant stakeholders and organizations for adoptions of appropriate technologies.	Competent		
Key Role: Product	ion Partner		·	
Key competency	Behaviour Indicator	Current performance (Competent or Not competent)	Likely reasons for performance gaps	Method of Intervention
2.1.1 Crop agronomy and management	2.1.1.1 Possesses sound knowledge in crop agronomy, management and integrated farming system to ensure sustainable food production.	Not Competent	limited skills and experience in crop cultivation technologies	STT, OJT & Mentoring
	2.1.1.2 Demonstrates practical skills and experiences in crop cultivation and management to guide and supervise farming communities for enhancing food production.	Not competent	limited skills and experience in crop cultivation technologies	STT, OJT & Mentoring
2.1.2 Farm inputs and support services	2.1.2.1 Possesses knowledge and experiences on relevant agricultural inputs (e.g., seeds & seedlings, fertilizers) and support services (e.g., land conversion, farm infrastructures, farm credits) needed by the farming community to enhance food production.	Competent		
	2.1.2.2 Mobilizes and facilitates need-based agricultural inputs and support services required by the farming community to enhance accessibility, distribution and service delivery.	Competent		
2.2.1 Training, demonstration and	2.2.1.1 Possesses course content knowledge and skills on various extension tools to impart intended information and skills on the specific training, demonstration and advisory programs.	Competent		
advisory	2.2.1.2 Prioritizes and conducts need-based training, demonstration and advisory programs to the farming community and relevant stakeholders for effective dissemination and adoption of technologies.	Competent		
2.2.2 Stakeholder collaboration and	2.2.2.1 Identifies and engages relevant stakeholders in the planning and implementation processes to achieve common goals and objectives.	Competent		
engagement	2.2.2.2 Possesses negotiation and mediation skills to influence diverse stakeholders for effective decision making and problem solving.	Not Competent	Limited communication skills	Workshop & Mentoring

2.3.1 Mobilization of farm resources	2.3.1.1 Develops relevant project proposals and strategies to help mobilize financial, technical and human resources essential for facilitating food production.	Not competent	Limited knowledge and skills in developing project proposals	Workshop & Mentoring
	2.3.1.2 Strengthens professional relationships and institutional linkages for exchange of skills, information and sustainable access to essential farm resources.	Competent		
2.3.2 Judicious use of limited	2.3.2.1 Encourages judicious use of limited resources of an organization to reduce wasteful expenditures and generate maximum outcomes.	Competent		
resources	2.3.2.2 Prioritizes and allocates resources based on emerging needs and priority of an organization to ensure responsible production and consumption.	Competent		
Key Role: Support				
Key competency	Behaviour Indicator	Current performance (Competent or Not competent)	Likely reasons for performance gaps	Method of Intervention
3.1.1 Work	3.1.1.1 Prepares plans and programs aligning with organisational mandates to achieve targeted goals and objectives.	Competent		
planning and budgeting	3.1.1.2 Involves in preparing realistic work plans and budget to ensure effective implementation of the plans and programs of an organization.	Competent		
3.1.2 Legislative and regulatory	3.1.2.1 Displays knowledge and awareness on agriculture and other relevant policies, acts, rules and regulations for proper planning and implementation.	Competent		
frameworks	3.1.2.2 Conducts sensitization of agriculture policies, acts, rules and regulations to the farming community and relevant stakeholders for compliance and enforcement.	Competent		
3.2.1 Record keeping and	3.2.1.1 Possess knowledge and skills on application of relevant ICT tools such as Excel and other database software to compile and record the relevant organizational information.	Not Competent	Limited knowledge and skills in ICT	STT
inventory	3.2.1.2 Displays ability to regularly record and update databases of an organization such as office equipment, tools, infrastructures and other assets for proper tracking and inventory.	Competent		
3.2.2 Information	3.2.2.1 Participates in creating, sharing, using and managing the knowledge and information of an organisation.	Competent		
and knowledge	3.2.2.2 Initiates digitization of relevant agriculture knowledge and	Not Competent	Limited knowledge	STT, OJT &

management	information such as research publication and other study		and skills in	Mentoring
	materials for effective archiving, accessibility and distribution.		digitizing agriculture	
	3.3.1.1 Possesses knowledge and skills on application of relevant	Not Competent	Limited knowledge	STT, Workshop &
3.3.1 Monitoring M&E tools to carry out effective monitoring and assessment of			and skills in	Mentoring
of plans and	the plans and programs.		monitoring and	
programs			evaluation	
	3.3.1.2 Conducts timely monitoring and evaluation of the plans	Competent		
	and programs for effective review, recommendation and			
	reporting.			
	3.3.2.1 Conducts proper review and analysis of organizational	Not Competent	Limited skills in	Workshop &
3.3.2 Progress	work plans and budgets for proper understanding and assessment		reviewing and	Mentoring
compilation and	of the progress.		analysing work plan	
reporting			and budget	
	3.3.2.2 Conducts timely collection, compilation and reporting of	Competent		
	physical and financial progress for effective information sharing	-		
	and decision making.			

Table 8: Training Needs Assessment of Advanced level (SS4-SS1)

Key Role: Technical Expert					
Key competency	Behaviour Indicator	Current performance (Competent or Not competent)	Likely reasons for performance gaps	Method of Intervention	
1.1.1 Core content knowledge in agriculture	1.1.1.1 Possesses core content knowledge in relevant agriculture subjects (e.g., horticulture, post-harvest, plant protection) to carry out effective research and development.	Competent			
	1.1.1.2 Understands and comprehends core content knowledge in relevant agriculture subjects for proper interpretation and application.	Competent			
1.1.2 Continuous learning and development	1.1.2.1 Displays curiosity and interest to learn, acquire and update knowledge and skills for continuous learning and professional development.	Competent			
	1.1.2.2 Capitalizes on the available resources including experts and study materials for continuous learning and professional development.	Competent			
1.2.1 Research	1.2.1.1 Exhibits knowledge and skills on research planning and	Not Competent	Limited knowledge	STT, Workshop	

methodology	designing for conducting effective research and development.		and skills in R&D	Mentoring
	1.2.1.2 Plans and conducts need-based research to address	Competent		
	pertinent and existing field issues and challenges.			
1.2.2 Statistical	1.2.2.1 Possesses knowledge and skills on application of relevant	Not Competent	Limited of	STT, OJT &
data collection and	statistical tools and approaches (e.g., Excel, SPSS) to carry out		knowledge and	Mentoring
analysis	effective data collection and analysis.		skills on application	
			of statistical tools	
	1.2.2.2 Comprehends and interprets data and research outcomes	Not Competent	Limited knowledge	STT, OJT &
	for effective research communication, publication and application.		and skills on	Mentoring
			application of	
1210		<u>C</u>	statistical tools	
1.3.1 Creativity and innovation	1.3.1.1 Displays analytical and critical thinking abilities to identify	Competent		
and innovation	and develop innovative solutions for the field problems.	Neterretert	Lack of interest,	CTTT 9 W/- ull
	1.3.1.2 Designs, operates and implements smart agricultural technologies in the field to address problems and enhance	Not competent	skills and exposure	STT & Workshop
	resource use efficiency and outputs.		in learning new	
	resource use efficiency and outputs.		ideas	
1.3.2 Cognizant of	1.3.2.1 Participates in the various scientific and professional	Competent	liceas	
latest technologies	forums to keep abreast of the latest and innovative agriculture	Sompetent		
	technologies.			
	1.3.2.2 Disseminates innovative ideas and solutions to the farming	Competent		
	community, relevant stakeholders and organizations for adoptions	-		
	of appropriate technologies.			
Key Role: Product		1	1	
Key competency	Behaviour Indicator	Current performance	Likely reasons for	Method of
		(Competent or Not	performance gaps	Intervention
		competent)		
2.1.1 Crop	2.1.1.1 Possesses sound knowledge in crop agronomy,	Competent		
1				
agronomy and	management and integrated farming system to ensure sustainable			
agronomy and management	food production.			
	food production.2.1.1.2 Demonstrates practical skills and experiences in crop	Competent		
0 .	food production.2.1.1.2 Demonstrates practical skills and experiences in crop cultivation and management to guide and supervise farming	Competent		
management	food production.2.1.1.2 Demonstrates practical skills and experiences in crop cultivation and management to guide and supervise farming communities for enhancing food production.	-		
2.1.2 Farm inputs	food production.2.1.1.2 Demonstrates practical skills and experiences in crop cultivation and management to guide and supervise farming communities for enhancing food production.2.1.2.1 Possesses knowledge and experiences on relevant	Competent		
management	food production.2.1.1.2 Demonstrates practical skills and experiences in crop cultivation and management to guide and supervise farming communities for enhancing food production.	-		

	2.1.2.2 Mobilizes and facilitates need-based agricultural inputs and	Competent		
	support services required by the farming community to enhance			
	accessibility, distribution and service delivery.			
22177	2.2.1.1 Possesses course content knowledge and skills on various	Competent		
2.2.1 Training, demonstration and	extension tools to impart intended information and skills on the specific training, demonstration and advisory programs.			
advisory	2.2.1.2 Prioritizes and conducts need-based training,	Competent		
advisory	demonstration and advisory programs to the farming community	Competent		
	and relevant stakeholders for effective dissemination and			
	adoption of technologies.			
	2.2.2.1 Identifies and engages relevant stakeholders in the	Competent		
2.2.2 Stakeholder	planning and implementation processes to achieve common goals	-		
collaboration and	and objectives.			
engagement	2.2.2.2 Possesses negotiation and mediation skills to influence	Competent		
	diverse stakeholders for effective decision making and problem			
	solving. 2.3.1.1 Develops relevant project proposals and strategies to help	Neterret	Limited knowledge	Workshop &
	mobilize financial, technical and human resources essential for	Not competent	and skills in	Mentoring
of farm resources	facilitating food production.		developing project	Mentoning
			proposals	
	2.3.1.2 Strengthens professional relationships and institutional	Competent		
	linkages for exchange of skills, information and sustainable access			
	to essential farm resources.			
	2.3.2.1 Encourages judicious use of limited resources of an	Competent		
2.3.2 Judicious use	organization to reduce wasteful expenditures and generate			
of limited	maximum outcomes. 2.3.2.2 Prioritizes and allocates resources based on emerging	Compotent		
resources	needs and priority of an organization to ensure responsible	Competent		
	production and consumption.			
Key Role: Support				I
Key competency	Behaviour Indicator	Current performance	Likely reasons for	Method of
		(Competent or Not	performance gaps	Intervention
		competent)		
2 4 4 W/ 1	3.1.1.1 Prepares plans and programs aligning with	Competent		
3.1.1 Work	organisational mandates to achieve targeted goals and			
planning and	objectives.			

budgeting	3.1.1.2 Involves in preparing realistic work plans and budget	Competent		
	to ensure effective implementation of the plans and	-		
	programs of an organization.			
	3.1.2.1 Displays knowledge and awareness on agriculture and	Competent		
3.1.2 Legislative	other relevant policies, acts, rules and regulations for proper	1		
and regulatory	planning and implementation.			
frameworks	3.1.2.2 Conducts sensitization of agriculture policies, acts, rules	Competent		
	and regulations to the farming community and relevant			
	stakeholders for compliance and enforcement.			
	3.2.1.1 Possess knowledge and skills on application of relevant	Competent		
3.2.1 Record	ICT tools such as Excel and other database software to compile			
keeping and	and record the relevant organizational information.			
inventory	3.2.1.2 Displays ability to regularly record and update databases of	Competent		
	an organization such as office equipment, tools, infrastructures			
	and other assets for proper tracking and inventory.			
	3.2.2.1 Participates in creating, sharing, using and managing the	Competent		
3.2.2 Information	knowledge and information of an organisation.			
and knowledge	3.2.2.2 Initiates digitization of relevant agriculture knowledge and	Not competent	Limited knowledge	STT & OJT
management	information such as research publication and other study		and skills in	
	materials for effective archiving, accessibility and distribution.	Ъ.т.	digitizing agriculture	
221 1	3.3.1.1 Possesses knowledge and skills on application of relevant	Not competent	Limited knowledge and skills in	STT & Workshop
3.3.1 Monitoring	M&E tools to carry out effective monitoring and assessment of			
of plans and programs	the plans and programs.		monitoring and evaluation	
programs	3.3.1.2 Conducts timely monitoring and evaluation of the plans	Competent	Cvaluation	
	and programs for effective review, recommendation and	Competent		
	reporting.			
	3.3.2.1 Conducts proper review and analysis of organizational	Competent		
3.3.2 Progress	work plans and budgets for proper understanding and assessment	Competent		
compilation and	of the progress.			
reporting	3.3.2.2 Conducts timely collection, compilation and reporting of	Competent		
1 0	physical and financial progress for effective information sharing			
	and decision making.			

11. Competency Development Interventions and its Learning Objectives

The framework has highlighted the likely reasons for the performance gap and accordingly following competency development interventions are proposed to enhance the competency of agriculture supervisors at different proficiency levels.

Table 9: Proposed short-term training programs

Thematic Areas	Course title	Position level	Learning objectives	Methods of implementation
Crop production and breeding	Nursery management & plant propagation Orchard management Field crops production technology Vegetable production technology	S2-S1	To enhance knowledge and skills on specific crop production technologies to enhance food and nutrition security	STT & OJT STT & OJT STT & OJT STT & OJT
	MAPS crops cultivation Fruits and Nuts production technology Plantation crops cultivation Genetics and Plant Breeding	S2-SS1		STT & OJT STT & OJT STT & OJT STT & OJT
Seed production	Tissue culture and biotechnology	S2-SS1	To enhance knowledge and skills in tissue culture and biotechnology	STT & OJT
	Maintenance breeding and seed production technology Seed quality testing and seed lab management	S2-S1	To improve the quality of seed production To improve the science of seed testing and seed lab management	STT & OJT STT, OJT & Mentoring
	Seed processing and packaging training		To enhance seed processing techniques	STT
	Seed industry and market development	SS4-SS1	To strengthen the seed industry and marketing of quality seeds	STT
Plant protection	Lab equipment and testing procedures	S2-SS2	To improve knowledge and skills in integrated pest management	STT, OJT &Mentoring

	Pest surveillance system		To enhance the pest surveillance	STT
			system	
	Vertebrate pest management		To improve vertebrate pest	STT
			management system	
	Weed management		To acquaint with relevant weed	STT
		S2-SS1	management skills and knowledge	
	Agro-chemical management	02-001	To enhance skills in safe handling of	STT
			agro-chemical management	
	Integrated pest management		To acquaint with state-of-the-art lab	STT & OJT
			equipment and testing procedures	
Mushroom	Mushroom production technology		To enhance knowledge and skills in	STT & OJT
production		S2-S1	mushroom production	
	spawn production technology	52-51	To improve skills for healthy and	STT & OJT
			quality spawn	
	Mushroom biotechnology	S2-SS1	To improve biotechnology skills in	STT & OJT
		02-001	mushroom program	
Soil & land	Sustainable land management	S2-S1	To gain skills and knowledge on land	STT, OJT & Mentoring
management	practices		management technologies	
	Integrated nutrient and soil fertility	S2-SS1	To gain skills and knowledge on	STT
	management	02 001	different INM technologies	
	Soil survey and mapping		To enhance knowledge and skills on	STT & OJT
			soil survey and mapping in the	
			country	
	Soil, water and plant analysis		To gain skills and knowledge in	STT, OJT & Mentoring
		S2-SS1	carrying out analysis of soil, water and	
			plants	
	Use and operation of advanced		To enhance advance laboratory	STT, OJT & Mentoring
	laboratory equipment (ELISA, PCR		techniques	
	and RT-PCR)			
Organic	Organic crop production technology		To gain skills and knowledge on	STT & OJT
Agriculture	Bio-fertilizer, bio-pesticide and	S2-SS2	promotion of organic technologies	STT & OJT
	organic manure production			

	technology			
	Organic plant protection and soil fertility technologies			STT
	Training on organic accreditation and certification systems	SS4-SS1	To gain skills and knowledge on certification processes	STT
Floriculture and Landscaping	Amenity landscaping Floriculture nursery management	S2-SS2	To gains skills in promoting floriculture enterprise and amenity landscaping in the country	STT, OJT & Mentoring STT, OJT & Mentoring
Modern/ precision farming	Protected cultivation techniques (hydroponics, aeroponics, automation)	S2-SS2	To gain skills and knowledge intensive crop cultivation	STT & OJT
	Smart irrigation system (drip, sprinkler, fertigation, automation)		To gain skills and knowledge in enhancing the efficiency of water use	STT & OJT
	Digitizing Agriculture	S2-SS1	To acquaint with the tools towards digitizing Bhutanese agriculture	STT
	Application of GIS, GPS and Remote Sensing in Agriculture	S2-SS1	To develop the ability to apply the usage of GIS, GPS and remote sensing in various agriculture services	STT
	Crop modelling and Simulation		To enhance the knowledge and skills in conducting crop modelling and simulations	STT
Climate smart / resilient agriculture technologies	Climate smart agriculture / climate resilient practices	S2-SS1	To enhance knowledge and skills in climate smart agriculture	STT
	Weather and climate services (Agro- meteorology)		To strengthen the quality and timely dissemination of agro-advisories	STT & Workshop
Research & Statistical analysis	Basic research methodologies	S2-SS1	To enhance research skills and publish research findings	STT & Workshop
	Basic Statistical data analysis skills		To acquaint with statistical tools and improve the knowledge and skills in data analysis	STT & Mentoring
Agriculture extension	Participatory planning and extension approaches	S2-SS2	To enhance knowledge and skills for extension services	STT & Mentoring

	Formation of farmers groups and cooperatives			STT & Mentoring
	Development of audio-visual tools in agriculture	S2-S1		STT & Mentoring
Cross sectoral	Result Based Management and M&E		To gain knowledge and skills in some	
training	tools		of the basic to advance cross sectoral	
	Policy and legislations		tasks that are critical for efficient	Induction Program
	Leadership management and	SS4-SS1	planning, implementation and	STT, Workshop &
	development	334-331	monitoring of plans and programs	Mentoring
	Communication, negotiation and			Workshop & Mentoring
	conflict management skills			
	Planning, budgeting and financial		Note: These cross-cutting trainings will be	
	management		initiated and implemented by the central	
	Computer/ICT training		agencies.	STT
	Data and office management			STT, Workshop &
		S2-S1		Mentoring
	e-governance			Workshop
	Emotional Intelligence			Workshop

12. Implementation of Competency-Based Framework

The implementation of training programs and other CDI by the agency should be based on the mandatory CDI identified for different proficiency levels. The mandatory list of CDI includes all the interventions that are found to be "Not Competent" under the Training Needs Analysis. While implementing the training program, the Department/HR Division of the Ministry should prioritize based on the following criteria:

- A most critical area of intervention
- Interventions that are reflected as "Not Competent"
- Availability of resources
- Alignment of donor-funded capacity building to the mandatory training identified under this framework

13. Recommendations

Different stakeholders were engaged and Agriculture Supervisor at different proficiency levels was consulted through a series of consultations, meetings, online surveys, workshops, and focused group discussions. In the process of CBF development, the team has come up with the following recommendations for effective implementation of CBF for Agriculture Supervisors

- Conduct adequate advocacy and provide sufficient training for CBF practitioners and users.
- CBF should be a living document and should be updated as and when required based on changing needs of the organization.
- HR Officers in the organization are critical in driving the successful implementation of CBF.
- The CBF is a new system in the organization and RCSC should communicate and advocate the importance and benefit of CBF across all the organizations for successful adoption and implementation.
- There should be a proper mechanism in place for assessing the success and outcome of CBF across all the organizations.
- RCSC should recommend budget provision for capacity building in the Department/Agency's annual budget as per CBF recommendations.

14. Conclusion

The CBF is introduced to guide government agencies not only towards identifying the skills needed by the employees but also to assist in the continuous professional development of civil servants for effective service delivery. Additionally, CBF defines clear expectations in the work environment and creates an organizational culture for reliable and high-quality service delivery.

The CBF for the Agriculture Supervisor consists of 3 Key roles, 9 Competency Areas, 18 Key Competencies, and 36 Behavioural Indicators which will guide and help foster staff mobility, organizational change, and shaping of the organizational culture based on competency. Developed through detailed consultation and a series of validations involving different stakeholders under the Department of Agriculture, CBF will contribute towards the smooth transition of traditional to more structured modern and contemporary management systems.

At the individual level, with CBF in place, it will provide an opportunity for the Agriculture Supervisors to enhance their professional and behavioural competencies. For an organization, it will not only help in envisioning a clear performance expectation but also enable to design of operational, strategic, and succession planning frameworks and programs to enhance overall organizational performance and to realize goals and objective objectives

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