

Model Curriculum

QP Name: Agriculture Extension Service Provider

Option: Formation of SHGs/ FIGs/ PGs

QP Code: AGR/Q7601

Version: 4.0

NSQF Level: 4

Model Curriculum Version: 3.0

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Table of Contents

Training Parameters 3

Program Overview 4

Training Outcomes 4

Compulsory Modules 4

Module 1: Introduction to the role of an Agriculture Extension Service Provider 7

Module 2: Process of planning and preparing to provide agriculture extension services 8

Module 3: Process of conducting field visits and demonstrations 10

Module 4: Process of conducting training sessions for farmers 14

Module 5: Process of assisting the farmers in establishing forward and backward linkages 16

Module 6: Hygiene and cleanliness 18

Module 7: Safety and emergency procedures 19

Module 8: Employability Skills 20

Module 9: Process of assisting in forming and operating of the Self-Help Groups (SHGs), Farmers Interest Group (FIGs) and Producer Groups (PGs) (Optional) 22

Module 10: On-the-Job Training Duration (Mandatory) 23

Annexure 24

Trainer Requirements 24

Assessor Requirements 25

Assessment Strategy 26

References 31

Glossary 31

Acronyms and Abbreviations 32

Training Parameters

Sector	Agriculture
Sub-Sector	Agriculture Industries
Occupation	Information Management
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/6116.0102
Minimum Educational Qualification and Experience	12th Grade pass or equivalent OR 10th Grade pass with 3 years of relevant experience in Agriculture and allied sectors OR Previous NSQF Level 3.5 with 1.5 years of relevant experience in Agriculture and allied sectors OR Previous NSQF Level 3.0 with 3 years of relevant experience in Agriculture and allied sectors
Pre-Requisite License or Training	NA
Minimum Job Entry Age	NA
Last Reviewed On	18-02-2025
Next Review Date	18-02-2028
NSQC Approval Date	18-02-2025
QP Version	4.0
Model Curriculum Creation Date	18-02-2025
Model Curriculum Valid Up to Date	18-02-2028
Model Curriculum Version	3.0
Minimum Duration of the Course	390 Hours
Maximum Duration of the Course	420 Hours

Program Overview

This section summarizes the end objectives of the program along with its duration.

Training Outcomes

At the end of the program, the learner should have acquired the listed knowledge and skills to:

- Describe the process of planning and preparing to provide agriculture extension services.
- Demonstrate the process of conducting field visits and demonstrations.
- Demonstrate the process of conducting training sessions for farmers.
- Describe the process of assisting farmers in establishing forward and backward linkages.
- Describe the process of forming and operating Self-Help Groups (SHGs), Farmers Interest Group (FIGs) and Producer Groups (PGs).
- Explain the basic entrepreneurial activities for small enterprise.
- Describe the process of undertaking employability and entrepreneurial practices.
- Demonstrate various practices to maintain personal hygiene, cleanliness, and safety at the work.

Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
AGR/N7601 Plan and prepare to provide agricultural extension services **NOS Version- 2.0** **NSQF Level- 4**	**20:00**	**40:00**	**00:00**	**0:00**	**60:00**
Module 1: Introduction to the role of an Agriculture Extension Service Provider	05:00	0:00	0:00	0:00	05:00
Module 2: Process of planning and preparing to provide agriculture extension services	15:00	40:00	0:00	0:00	55:00
AGR/N7603 Conduct field visits and demonstrations **NOS Version- 3.0** **NSQF Level- 4**	**25:00**	**35:00**	**00:00**	**0:00**	**60:00**
Module 3: Process of conducting field visits and demonstrations	25:00	35:00	00:00	0:00	60:00

AGR/N7604 Conduct training sessions for farmers **NOS Version- 2.0** **NSQF Level- 4**	**20:00**	**40:00**	**00:00**	**0:00**	**60:00**
Module 4: Process of conducting training sessions for farmers	20:00	40:00	00:00	0:00	60:00
AGR/N7605 Assist the farmers in establishing forward and backward Linkages **NOS Version-2.0** **NSQF Level- 4**	**20:00**	**40:00**	**00:00**	**0:00**	**60:00**
Module 5: Process of assisting farmers in establishing forward and backward linkages	20:00	40:00	00:00	0:00	60:00
AGR/N9903 Maintain health and safety at the workplace **NOS Version- 4.0** **NSQF Level-4**	**20:00**	**10:00**	**00:00**	**0:00**	**30:00**
Module 7: Hygiene and cleanliness	03:00	03:00	00:00	0:00	06:00
Module 8: Safety and emergency procedures	17:00	07:00	00:00	0:00	24:00
DGT/VSQ/N0102 Employability Skills **NOS Version-1.0** **NSQF Level-4**	**60:00**	**00:00**	**0:00**	**0:00**	**60:00**
Module 9: Employability Skills	60:00	00:00	0:00	0:00	60:00
Total Duration	**165:00**	**165:00**	**60:00**	**0:00**	**390:00**

Option: Formation of SHGs/ FIGs/ PGs

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
AGR/N9925 Assist in forming and operating SHGs/ FIGs/ PGs **NOS Version-2.0** **NSQF Level- 4**	**15:00**	**15:00**	**00:00**	**0:00**	**30:00**
Module 6: Process of assisting in forming and operating SHGs/ FIGs/ PGs	15:00	15:00	00:00	0:00	30:00
Total Duration	15:00	15:00	0:00	0:00	30:00

Module Details

Module 1: Introduction to the role of an Agriculture Extension Service Provider

Mapped to AGR/N7601 v2.0

Terminal Outcomes:

- Discuss the job role of an Agriculture Extension Service Provider.

Duration: 05:00	**Duration**: 0:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Describe the size and scope of the agriculture industry and its sub-sectors. • Discuss the role and responsibilities of an Agriculture Extension Service provider. • Identify various employment opportunities for an Agriculture Extension Service Provider.	
Classroom Aids	
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
NA	

Module 2: Process of planning and preparing to provide agriculture extension services

Mapped to AGR/N7601 v2.0

Terminal Outcomes:

- Explain how to identify the target area and audience.
- Describe the process of planning the delivery of extension services.

Duration: 15:00	Duration: 40:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain how to identify the target area and audience for providing agricultural extension services. • Describe the process of evaluating the socio-economic aspects and agro-climatic conditions of the target area. • Explain the importance of meeting with the representative group of farmers and other stakeholders such as the sarpanch, producer organisations, to assess their needs . • Explain the objectives and benefits of extension services. • Describe the process of determining the suitability of any new technology in the local context through consultation with the representative group. • Explain the importance of getting trained on relevant technologies, tools, implements and equipment to provide extension services to farmers. • Describe the process of planning the delivery of agricultural extension services through discussion with senior extension officers assessing the technology training requirements in the target area. • List the necessary infrastructure, tools, implements, equipment, audio-visual aids and literature required for conducting demonstrations and training sessions. • Describe the process of preparing for	• Roleplay to show how to conduct meetings with the representative group of farmers and other stakeholders to assess their needs. • Demonstrate the use of tools, implements, equipment and audio-visual aids for conducting demonstrations and training sessions.

the training program. • Explain the importance and process of identifying the problems to be addressed on the basis of priority. • Explain different modes of delivering training to farmers and how to select an appropriate mode of delivering the training. • Explain how to prepare a cost-effective plan for providing agricultural extension services. • Explain the crop contingency plan by the government for different regions and relevant government schemes and policies.	
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
NA	

Module 3: Process of conducting field visits and demonstrations

Mapped to ARG/N7603 v3.0

Terminal Outcomes:

- Describe the process of preparing for field visits and demonstrations.
- Demonstrate the process of conducting field visits and demonstrations.
- Demonstrate the process of carrying out documentation and analysis.
- Demonstrate various practices for effective resource optimisation.
- Demonstrate various waste management practices
- Discuss ways to promote diversity and inclusion at the workplace.

Duration: 25:00	Duration: 35:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the importance of ensuring adequate space and safety of all the concerned people during demonstrations. • Explain the benefits of involving volunteers in the demonstration of various machineries, tools, equipment and processes. • Explain the use of a variety of agricultural tools, implements, equipment, etc. • Explain the application of relevant technologies in the agriculture sector. • Explain the importance and process of preparing the Package of Practices (PoP) for the implementation of relevant technologies and coordinating with the relevant agricultural universities, government's agriculture department, research institutes and SMEs for the purpose. • Explain how to prepare presentations for demonstrations. • Describe the process of conducting field visits to demonstrate various agricultural activities and processes. • Describe the process of demonstrating the operation of various farm machineries and equipment. • Explain the importance of ensuring	• Show how to prepare relevant presentations for demonstrations, including all the important information. • Roleplay to show how to conduct field visits to demonstrate various agricultural activities and processes such as seeding, application of fertilisers/ insecticides/ pesticides, weeding etc. • Demonstrate how to explain the operation of various farm machineries and equipment, such as mechanical ploughing machine, harrow, rotavator, seed drill etc. • Roleplay how to conduct on-farm experiments using statistically valid experimental designs. • Prepare a sample manual and/ or electronic record of all demonstrations, results of on-farm experiments using the physical registers and/ or the relevant computer application. • Prepare a sample record of deliberation held with the farmer representative group and stakeholders. • Show how to prepare the technical report containing information on the cost-benefit ratio with respect to the demonstration to determine the economic returns.

maximum participation of farmers in field visits and Demonstrations. • Describe the process of determining the causes of problems faced in agricultural operations and cause-effect relationships, along with possible solutions and their feasibility. • Describe the process of assessing the performance and potential application of new technologies or farm practices in the local context. • State the relevant information to be recorded with respect to the demonstrations carried out. • Explain the importance of analysing the farm experiment results and deliberating upon the relevant ideas with the farmer representative groups and stakeholders. • Explain the importance of using the experiment findings for improving training programs, demonstrations and future research. • Describe the process of preparing the technical report containing information on cost-benefit ratio with respect to the demonstration to determine the economic returns. • Explain how to prepare an economically and operationally viable action plan that meets the needs of the farmers. • Explain various climatic parameters such as maximum and minimum temperatures, intensity and distribution of precipitation (rainfall), relative humidity etc. • List various pests and diseases specific to different agro-climatic regions. • State the life cycles of various pests and diseases and the sources of infection. • Describe the procedure of soil sampling through an authorised soil-testing laboratory, various macro and	• Demonstrate various practices to optimise the usage of various resources such as water and electricity. • Demonstrate the process of recycling and disposing different types of waste appropriately. • Demonstrate appropriate verbal and non-verbal communication that is respectful of genders and disability.

micronutrients that are analysed and how to interpret the soil analysis report. • Explain different soil types, their advantages and disadvantages with reference to the nutrient status. • Describe various methods of field preparation for the cultivation of varieties of crop. • Explain how to apply fertilisers to soil and the recommended quantity to be used based on applicable factors such as the crop's life cycle. • Explain the effects of soil type, field levelling and water availability on the crop growth and its yield. • Describe different methods of trimming different types of crops. • Explain how to use irrigation resources effectively. • Describe various methods of precision farming and their application in crop cultivation. • Explain how to harvest different types of agricultural crop, and the relevant handling and postharvest processing procedures. • Describe the process of sorting and grading different types of agricultural produce. • Explain the appropriate conditions for storing different types of agricultural produce and the applicable costs. • Explain the importance of storing and transporting agricultural produce in hygienic conditions. • Describe various operations that have the potential to increase the yield and decrease the incidence of pests and diseases. • Explain the latest technological developments with the potential to improve the crop yield and resource use efficiency.	

• Explain the safe use of different types of pesticides, insecticides, fungicides, weedicides, etc. • Describe the first aid procedure to be followed in case of chemical poisoning. • Explain the use of various agricultural machineries, tools, implements and equipment. • Explain effective ways of conducting demonstrations and training sessions. • Explain how to build rapport with people from different cultural backgrounds. • Explain the importance of finding solutions to problems faced by farming communities for effective delivery of agricultural extension services. • Explain the importance and process of maintaining various records manually and electronically using the physical registers and the relevant computer application. • Explain the benefits of resource optimisation. • Explain the importance of recycling and disposing different types of waste as per the applicable regulations. • Explain the importance of inclusion of all genders and People with Disability (PwD) at the workplace.	
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
NA	

Module 4: Process of conducting training sessions for farmers

Mapped to AGR/N7604 v2.0

Terminal Outcomes:

- Describe the process of planning the training program.
- Demonstrate the process of delivering the training program.
- Explain how to seek feedback and make necessary improvements.
- Explain the importance of following up with the farmers.

Duration: 20:00	Duration: 40:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Describe the process of identifying the target group of farmers for providing relevant agricultural training. • Explain the importance of selecting an appropriate time and venue for delivering the training program to ensure maximum participation of farmers. • Explain different modes for the delivery of training such as classroom training or community visits. • State the relevant agriculture and allied subject matter to be covered in training sessions with farmers. • Describe the process of preparing the training modules and the importance of including all the relevant information with illustrations in an easy-to-understand language. • List various resources required for the delivery of agricultural training. • State the appropriate avenues to be suggested to farmers to supplement their income. • Explain the importance and process of delivering the theoretical and practical training modules clearly and concisely. • Explain the importance of making training sessions interactive and encouraging the active participation of farmers. • Explain the importance of checking if	• Demonstrate the process of delivering theoretical and practical training modules. • Show how to make training sessions interactive and encourage active participation of farmers. • Show how to assess if the farmers are able to understand the subject matter being covered in the training session. • Demonstrate the use of physical registers and relevant computer applications for maintaining various records. • Demonstrate appropriate methods for seeking feedback from farmers regarding the training sessions.

the farmers are able to understand the concepts and functioning of tools, implements and machineries. • Explain the importance of guiding farmers on applicable effective farming practices such as preparing the layout of the field for the optimum utilisation of available space. • Explain the importance and process of maintaining the record of all training programs delivered, including any challenges faced, the feedback received and appropriate actions are taken. • Explain the importance of implementing appropriate changes in the training program to make it effective, as per the feedback received from farmers. • Explain the importance of following up with farmers to ensure they are following the newly-taught technologies and practices and assisting them in resolving any issues they face. • Explain how to assess the benefits farmers receive from the training program.	
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
NA	

Module 5: Process of assisting the farmers in establishing forward and backward linkages

Mapped to NOS AGR/N7605 v2.0

Terminal Outcomes:

- Describe the process of assisting in establishing forward and backward linkages.
- Describe the process of assisting in learning agri-business practices.

Duration: 20:00	Duration: 40:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain how to assist the farmers in arranging various high-quality and cost-effective agricultural inputs. • Describe the process for farmers to avail applicable farmer-centric credit facilities, and personal and crop insurance facilities. • Explain the importance of assisting the farmers in establishing contact with the relevant service or input providers, markets and buyers. • Describe the process of identifying the opportunities for establishing forward and backward linkages and assisting the farmers in establishing the same through the supply chain in the food industry. • Explain the importance of ensuring farmers are able to secure a timely supply of various agricultural inputs. • Explain how to ensure uninterrupted farm operations. • Describe the process of preparing and linking a follow-up program with the relevant local institutions such as farmer cooperative society, FPOs, village panchayat etc. • Explain the importance of assisting the farmers in developing entrepreneurial skills and learning effective cash management, warehouse management and marketing practices. • Describe the process of preparing an effective agri-business plan	• Demonstrate the process of identifying the opportunities for establishing forward and backward linkages and assisting the farmers in establishing the same. • Demonstrate how to prepare and link a follow-up program with the relevant local institutions. • Demonstrate the process of preparing the effective agri-business plan considering all the applicable factors.

considering all the applicable factors. • Explain different marketing and sales channels for a variety of agricultural produce. • Explain the practice of planning need-based production using the appropriate forecasting techniques.	
Classroom Aids:	
Training Kit (Trainer **G**uide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
NA	

Module 6: Hygiene and cleanliness

Mapped to NOS AGR/N9903 v4.0

Terminal Outcomes:

- Discuss how to adhere to personal hygiene practices.
- Demonstrate ways to ensure cleanliness around the workplace.

Duration: 10:00	Duration: 05:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the requirements of personal health, hygiene and fitness at work. • Describe common health-related guidelines laid down by the organizations/ Government at the workplace. • Explain the importance of good housekeeping at the workplace. • Explain the importance of informing the designated authority on personal health issues related to injuries and infectious diseases.	• Demonstrate personal hygiene practices to be followed at the workplace. • Demonstrate the correct way of washing hands using soap and water, and alcohol-based hand rubs. • Demonstrate the steps to follow to put on and take off a mask safely. • Show how to sanitize and disinfect one's work area regularly. • Demonstrate adherence to the workplace sanitization norms. • Show how to ensure the cleanliness of the work area.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and Software, Facilitator's Guide, Participant's Handbook.	
Tools, Equipment and Other Requirements	
Personal Protective Equipment, Cleaning Equipment and Materials, Sanitizer, Soap, Mask	

Module 7: Safety and emergency procedures

Mapped to NOS AGR/N9903 v4.0

Terminal Outcomes:

- Describe how to adhere to safety guidelines.
- Show how to administer appropriate emergency procedures.

Duration: 10:00	Duration: 05:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• List the PPE required at the workplace. • Describe the commonly reported hazards at the workplace. • Describe the hazards caused due to chemicals/pesticides/fumigants. • Describe the basic safety checks to be done before the operation of any equipment/machinery. • Describe the common first aid procedures to be followed in case of emergencies. • State measures that can be taken to prevent accidents and damage s at the workplace. • Explain the importance of reporting details of first aid administered, to the reporting officer/doctor, in accordance with workplace procedures. • State common health and safety guidelines to be followed at the workplace.	• Check various areas of the workplace for leakages, water-logging, pests, fire, etc. • Demonstrate how to safely use the PPE and implements as applicable to the workplace. • Display the correct way of donning, doffing and discarding PPE such as face masks, hand gloves, face shields, PPE suits, etc. • Sanitize the tools, equipment and machinery properly. • Demonstrate the safe disposal of waste. • Demonstrate procedures for dealing with accidents, fires and emergencies. • Demonstrate emergency procedures to the given workplace requirements. • Demonstrate the use of emergency equipment in accordance with manufacturers' specifications and workplace requirements. • Demonstrate the administration of first aid. • Prepare a list of relevant hotline/ emergency numbers.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook.	
Tools, Equipment and Other Requirements	
Personal Protective Equipment, First Aid Kit, Equipment used in Medical Emergencies.	

Module 8: Employability Skills

Mapped to NOS DGT/VSQ/N0102 v1.0

Duration: 60:00

Key Learning Outcomes

Introduction to Employability Skills Duration: 1.5 Hours

After completing this programme, participants will be able to:

1. Discuss the Employability Skills required for jobs in various industries
2. List different learning and employability related GOI and private portals and their usage

Constitutional values - Citizenship Duration: 1.5 Hours

3. Explain the constitutional values, including civic rights and duties, citizenship, responsibility towards society and personal values and ethics such as honesty, integrity, caring and respecting others that are required to become a responsible citizen
4. Show how to practice different environmentally sustainable practices.

Becoming a Professional in the 21st Century Duration: 2.5 Hours

5. Discuss importance of relevant 21st century skills.
6. Exhibit 21st century skills like Self-Awareness, Behavior Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn etc. in personal or professional life.
7. Describe the benefits of continuous learning.

Basic English Skills Duration: 10 Hours

8. Show how to use basic English sentences for everyday conversation in different contexts, in person and over the telephone
9. Read and interpret text written in basic English
10. Write a short note/paragraph / letter/e -mail using basic English

Career Development & Goal Setting Duration: 2 Hours

11. Create a career development plan with well-defined short- and long-term goals

Communication Skills Duration: 5 Hours

12. Demonstrate how to communicate effectively using verbal and nonverbal communication etiquette.
13. Explain the importance of active listening for effective communication
14. Discuss the significance of working collaboratively with others in a team

Diversity & Inclusion Duration: 2.5 Hours

15. Demonstrate how to behave, communicate, and conduct oneself appropriately with all genders and PwD
16. Discuss the significance of escalating sexual harassment issues as per POSH act.

Financial and Legal Literacy Duration:5 Hours

17. Outline the importance of selecting the right financial institution, product, and service
18. Demonstrate how to carry out offline and online financial transactions, safely and securely
19. List the common components of salary and compute income, expenditure, taxes, investments etc.
20. Discuss the legal rights, laws, and aids

Essential Digital Skills Duration: 10 Hours

21. Describe the role of digital technology in today's life
22. Demonstrate how to operate digital devices and use the associated applications and features, safely and securely
23. Discuss the significance of displaying responsible online behavior while browsing, using various social media platforms, e-mails, etc., safely and securely
24. Create sample word documents, excel sheets and presentations using basic features
25. utilize virtual collaboration tools to work effectively

Entrepreneurship Duration: 7 Hours

26. Explain the types of entrepreneurship and enterprises
27. Discuss how to identify opportunities for potential business, sources of funding and associated financial and legal risks with its mitigation plan
28. Describe the 4Ps of Marketing-Product, Price, Place and Promotion and apply them as per requirement
29. Create a sample business plan, for the selected business opportunity

Customer Service Duration: 5 Hours

30. Describe the significance of analyzing different types and needs of customers
31. Explain the significance of identifying customer needs and responding to them in a professional manner.
32. Discuss the significance of maintaining hygiene and dressing appropriately

Getting Ready for apprenticeship & Jobs Duration: 8 Hours

33. Create a professional Curriculum Vitae (CV)
34. Use various offline and online job search sources such as employment exchanges, recruitment agencies, and job portals respectively
35. Discuss the significance of maintaining hygiene and confidence during an interview
36. Perform a mock interview
37. List the steps for searching and registering for apprenticeship opportunities

Module 9: Process of assisting in forming and operating of the Self-Help Groups (SHGs), Farmers Interest Group (FIGs) and Producer Groups (PGs) (Optional)

Mapped to AGR/N9925 v1.0

Terminal Outcomes:

- Describe the process of identifying and connecting with the target audience.
- Describe the process of forming and operating SHGs, FIGs and PGs.

Duration: 15:00	Duration: 15:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the importance of forming SHGs, FIGs and PGs. • Describe the rules and regulations applicable to the formation and operation of SHGs, FIGs and PGs. • Describe the process of forming SHGs, FIGs and PGs for people with common concerns and socio-economic backgrounds. • Explain the benefits of establishing a group-owned bank of inputs such as quality seeds, fertilizers, pesticides, tools and equipment, etc. • Explain the importance of arranging for training and upskilling of the SHG, FIG and PG members. • Explain the importance of conducting field visits and trials to identify and resolve problems practically. • Discuss various value-addition practices to increase business profitability such as processing and packaging of produce.	• Roleplay to show how to connect with the target audience to counsel them about forming SHGs, FIGs and PGs. • Demonstrate how to conduct fundraising activities to support the group operations. • Roleplay to show how to conduct field visits and trials to identify and resolve problems practically.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
NA	

Module 10: On-the-Job Training Duration (Mandatory)

Mapped to AGR/Q7601 v3.0

Mandatory Duration: 60:00	Recommended Duration: 0:00
Location: On-Site	

Terminal Outcomes

1. Conduct roleplay to show how to conduct meetings with the representative group of farmers and other stakeholders to assess their needs
2. Explain the use of a variety of agricultural tools, implements, equipment, etc.
3. Explain the application of relevant technologies in the agriculture sector
4. Demonstrate how to explain the operation of various farm machineries and equipment, such as mechanical ploughing machine, harrow, rotavator, seed drill etc.
5. Describe the process of demonstrating the operation of various farm machineries and equipment
6. Demonstrate various practices to optimise the usage of various resources such as water and electricity.
7. Prepare a sample manual and/ or electronic record of all demonstrations, results of on-farm experiments using the physical registers and/ or the relevant computer application
8. Conduct field visits to demonstrate various agricultural activities and processes
9. Demonstrate the process of recycling and disposing different types of waste appropriately
10. Demonstrate the process of identifying the opportunities for establishing forward and backward linkages and assisting the farmers in establishing the same.

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	**Specialization**	**Relevant Industry Experience**		**Training Experience**		**Remarks**
		Years	***Specialization***	***Years***	***Specialization***	
12th Class		4	Agriculture Extension Service	0		Ex-Service-Man including Ex-Paramilitary personnel: Minimum Qualification is 10+2 with an Honourable Discharge/ Pension. SSC would consider a relaxation/waiver of sector-specific experience on a case-to-case basis.
Diploma	Agriculture	3	Agriculture Extension Service	0		
Graduate	Graduate in any stream except Agriculture & Agri-Allied sector	3	Agriculture Extension Service	0		For the school Program minimum qualification of the Trainer should be Graduate in Botany / Agriculture & Agri-Allied Sector with Teaching experience of minimum 2 years, (will be considered industry experience)
Graduate	Agriculture & Agri-Allied Sector	1	Agriculture Extension Service	0		
Post-Graduate	Agriculture/ Agriculture Extension	0		0		

Trainer Certification	
Domain Certification	**Platform Certification**
Certified for Job Role "**Agriculture Extension Service Provider**", mapped to QP: "AGR/Q7601, v4.0", Minimum accepted score is 80%	Recommended that the Trainer is certified for the Job Role: "Trainer(Vet and Skills)", mapped to the Qualification Pack: "MEP/Q2601, v2.0". The minimum accepted score as per MEPSC guidelines is 80%.

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	**Specialization**	**Relevant Industry Experience**		**Training/Assessment Experience**		**Remarks**
		Years	***Specialization***	***Years***	***Specialization***	
B.Sc.	Agriculture/ Extension and related streams	5	Agriculture/ Extension/ Community Management/ Rural Development and related experience	0		Practical skills and knowledge required in Agriculture Extension
PGDAEM		2	Agriculture/ Extension/ Community Management/ Rural Development and related experience	0		Practical skills and knowledge required in Agriculture Extension
M.Sc.	Agriculture/Extension/Rural Development and related streams	2	Agriculture/ Extension/ Community Management/ Rural Development and related experience	0		Practical skills and knowledge required in Agriculture Extension
PhD	Agriculture/ Extension/ Rural Development and related streams	1	Agriculture/ Extension/ Community Management/ Rural Development and related experience	0		Practical skills and knowledge required in Agriculture Extension

Assessor Certification	
Domain Certification	**Platform Certification**
Certified for Job Role "**Agriculture Extension Service Provider**", mapped to QP: "AGR/Q7601, v4.0", Minimum accepted score is 80%	Certified for the Job Role: "Assessor", mapped to the Qualification Pack: "MEP/Q2701, v2.0", with a minimum score of 80%.

Assessment Strategy

Assessment System Overview

In Agriculture Sector it is of ultimate importance that individuals dealing with crop production or livestock have the requisite knowledge and competencies to undertake the task. Based on the Assessment Criteria, SSC in association with empaneled AAs, define the test structure for the given job roles to cover the required skills and competencies. Assessment strategy consists of the following:

1. Multiple Choice Questions: To assess basic knowledge (Objective/Subjective)
2. Viva: To assess awareness on processes (Oral and/or written questioning)
3. Practical: To evaluate skills and identify competencies. (Observation)

Assessments for knowledge and awareness on processes may be conducted through 'real-time' internet-based evaluation or by conducting the same 'offline' through TABs. Skills and competencies are to be assessed by conducting 'practical' on the ground through qualified and ToA certified assessors.

An individual must have adequate knowledge and skills to perform a specific task, weightage for different aspects of the assessment is given as follows:

- Multiple Choice Questions: 20%-30%, depending on the specific QP
- Viva: 20%
- Practical: 50% - 60% (Involves demonstrations of applications and presentations of procedures/tasks and other components)
- Assessment will be carried out by certified assessors through empanelled assessment partners. Based on the results of the assessment; ASCI will certify the learners/candidates

Testing Environment

Assessments are conducted on laptops, Mobiles and android tablets via both offline and online mode depending on the internet connectivity at the assessment location.

In remote locations/villages, assessments get delivered through tablets without the requirement of the Internet.

- Multilingual assessments (ASCI is conducting the assessments in 13 + languages pan India)
- Rubric driven assessments in Practical/Viva sections and responses recorded accordingly
- All responses, data, records and feedback are stored digitally on the cloud
- Advanced auto-proctoring features – photographs, time-stamp, geographic-tagging, toggle- screen/copy-paste disabled, etc.
- Android-based monitoring system
- End to end process from allocation of a batch to final result upload, there is no manual intervention

- Assessment will normally be fixed for a day after the end date of the training / within 7 days of completion of training.
- Assessment will be conducted at the training venue
- The room where assessment is conducted will be set with proper seating arrangements with enough space to curb copying or other unethical activities
- Question bank of theory and practice will be prepared by ASCI /assessment agency and approved ASCI. Only from approved Question Bank assessment agency will prepare the question paper. Theory testing will include multiple-choice questions, pictorial questions, etc. which will test the trainee on his theoretical knowledge of the subject.
- The theory, practical and viva assessments will be carried out on the same day. In case of a greater number of candidates, the number of assessors and venue facilitation be increased and facilitated

Assessment			
Assessment Type	**Formative or Summative**	**Strategies**	**Examples**
Theory	Summative	MCQ/Written exam	Knowledge of facts related to the job role and functions. Understanding of principles and concepts related to the job role and functions
Practical	Summative	Structured tasks/Demonstration	Practical application /Demonstration /Application tasks
Viva	Summative	Questioning and Probing	Mock interviews on the usability of job roles/advantages /importance of adherence to procedures. Viva will be used to gauge trainee's confidence and correct knowledge in handling the job situation

The question paper is pre-loaded in the computer /Tablet and it will be in the language as requested by the training partner.

Assessment Quality Assurance framework

Assessment Framework and Design:

Based on the Assessment Criteria, SSC in association with AAs will define the test structure for the given roles to cover the required skills and competencies. ASCI offer a bouquet of tools for multi-dimensional evaluation of candidates covering language, cognitive skills, behavioural traits and domain knowledge.

Theoretical Knowledge - Item constructs and types are determined by a theoretical understanding of the testing objectives and published research about the item types and constructs that have shown statistical validity towards measuring the construct. Test item types that have been reported to be coachable are not included. Based on these, items are developed by domain experts. They are provided with comprehensive guidelines of the testing objectives of each question and other quality measures.

Type – Questions based on Knowledge Required, Case-based practical scenario questions and automated simulation-based questions.

Practical Skills - The practical assessments are developed taking into consideration two aspects: what practical tasks is the candidate expected to perform on the job and what aspects of the job cannot be judged through theoretical assessments. The candidates shall be asked to perform either an entire task or a set of subtasks depending on the nature of the job role

Type – Standardized rubrics for evaluation against a set of tasks in a demo/practical task

Viva Voce - Those practical tasks which cannot be performed due to time or resource constraints are evaluated through the viva mode. Practical tasks are backed up with Viva for thorough assessment and complete evaluation

Type – Procedural questions, dos and don'ts, subjective questions to check the understanding of practical tasks.

The assessor has to go through an orientation program organized by the Assessment Agency. The training would give an overview to the assessors on the overall framework of QP evaluation. The assessor shall be given a NOS and PC level overview of each QP as applicable. The overall structure of assessment and objectivity of the marking scheme will be explained to them. The giving of marks will be driven by an objective framework that will maintain the standardization of the marking scheme.

Type of Evidence and Evidence Gathering Protocol:

During the assessment the evidence collected by AAs and ASCI are:

- Geo Tagging to track ongoing assessment
- AA's coordinator emails the list of documents and evidence (photos and videos) to the assessor one day before the assessment. The list is mentioned below:
    - Signed Attendance sheet
    - Assessor feedback sheet
    - Candidate feedback sheet

- Assessment checklist for assessor
- Candidate Aadhar/ID card verification
- Pictures of the classroom, labs to check the availability of adequate equipment's and tools to conduct the training and assessment
- Pictures and videos of Assessment, training feedback and infrastructure.

- Apart from the Assessor, a Technical assistant is popularly known as Proctor also ensures the proper documentation and they verify each other's tasks.
- To validate their work on the day of the assessment, regular calls and video calls are done.
- On-boarding and training of the assessor and proctor are done on a timely basis to ensure that the quality of the assessment should be maintained.
- Training covers the understanding of QP, NSQF level, NOS and assessment structure

Methods of Validation

- Morning Check (Pre-Assessment): Backend team of AA calls and confirms assessor/technical SPOC event status. Assessor/Technical SPOC are instructed to reach the centre on time by 9:30 AM / as decided with TC and delay should be highlighted to the Training Partner in advance.
- Video Calls: Random video calls are made to the technical SPOC/assessor so as to keep a check on assessment quality and ensure assessment is carried out in a fair and transparent manner
- Aadhar verification of candidates
- Evening Check (Post Assessment): Calls are made to the ground team to ensure the event is over by what time and the documentation is done properly or not.
- TP Calling: To keep a check on malpractices, an independent audit team calls the TP on a recorded line to take confirmation if there was any malpractice activity observed in the assessment on part of the AA/SSC team. If calls are not connected, an email is sent to TP SPOC for taking their confirmation
- Video and Picture Evidence: Backend team collects video and pictures for assessment on a real-time basis and highlights any issue such as students sitting idle/ trainer helping the candidates during the assessment.
- Surprise Visit: Time to time SSC/AA Audit team can visit the assessment location and conduct a surprise audit for the assessment carried out by the ground team.
- Geo Tagging: On the day of the assessment, each technical SPOC is required to login into our internal app which is Geotagged. Any deviation with the centre address needs to be highlighted to the assessment team on a real-time basis.

Method for assessment documentation, archiving, and Access:

- ASCI have a fully automated result generation process in association with multiple AAs
- Theory, Practical and Viva marks form the basis of the results and encrypted files generated to avoid data manipulation. All responses were captured and stored in the System with Time-Stamps at the end of AAs and SSC. NOS-wise and PC-wise scores can

be generated.

- Maker Checker concept: One person prepares the results and another audit result which is internally approved by AA at first and then gets vetted at the end of SSC
- All softcopies of documents are received from the on-ground tech team over email. The same is downloaded by our internal backend team and saved in Repository. The repository consists of scheme-wise folders. These scheme-wise folders have two job role-specific folders. These specific folders have Year wise and Month wise folders where all documents are saved in Batch specific folders. All Hard copies are filed and stored in the storeroom.

Result Review & Recheck Mechanism –

- Time-stamped assessment logs
- Answer/Endorsement sheets for each candidate
- Attendance Sheet
- Feedback Forms: Assessor feedback form, Candidate feedback form, TP feedback form
- The results for each of the candidates shall be stored and available for review (retained for 5 years/ till the conclusion of the project or scheme)

References

Glossary

Term	Description
Declarative Knowledge	Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem.
Key Learning Outcome	The key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application).
OJT (M)	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on-site
OJT (R)	On-the-job training (Recommended); trainees are recommended the specified hours of training on-site
Procedural Knowledge	Procedural knowledge addresses how to do something, or how to perform a task. It is the ability to work or produce a tangible work output by applying cognitive, affective or psychomotor skills.
Training Outcome	Training outcome is a statement of what a learner will know, understand and be able to do upon the completion of the training.
Terminal Outcome	The terminal outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module. A set of terminal outcomes help to achieve the training outcome.

Acronyms and Abbreviations

Term	Description
AGR	Agriculture
FIG	Farmers Interest Groups
NOS	National Occupational Standard (s)
NSQF	National Skills Qualifications Framework
OJT	On-the-job Training
PG	Producers Group
PoP	Package of Practices
PwD	People with Disability
PPE	Personal Protective Equipment
QP	Qualifications Pack
SHG	Self-Help Groups