Model Curriculum

QP Name: Carbon Farming Practitioner

QP Code: AGR/Q6112

Version: 1.0

NSQF Level: 4.5

Model Curriculum Version: 1.0

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Training Parameters

Sector	Agriculture
Sub-Sector	Forestry, Environment and Renewable Energy Management
Occupation	Agro-forestry Management (Field Crop and Vegetable Grower)
Country	India
NSQF Level	4.5
Aligned to NCO/ISCO/ISIC Code	NCO-2015/6111
Minimum Educational Qualification and Experience	UG Certificate or equivalent* OR Completed 1st year of 2 year diploma* after 12th OR Completed 3 year diploma* after 10th OR 12th Grade Pass with 1.5 years experience in Agriculture and allied sectors OR 10th Grade Pass with 4.5 years experience in Agriculture and allied sectors OR Previous relevant Qualification of NSQF Level 4 with 1.5-year experience in farming related activities *Agriculture/Horticulture/Forestry/ Agriculture Engineering/Veterinary Sciences and Animal Husbandry/Diary Technology*
Pre-Requisite License or Training	NA
Minimum Job Entry Age	NA
Last Reviewed On	30/04/2024
Next Review Date	30/04/2027
NSQC Approval Date	30/04/2024
QP Version	1.0
Model Curriculum Creation Date	30/04/2024
Model Curriculum Valid Up to Date	30/04/2027
Model Curriculum Version	1.0
Minimum Duration of the Course	480 Hours
Maximum Duration of the Course	480 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:

- Discuss the job role of a carbon farming practitioner
- Explain various concepts of Carbon Farming
- Explain various activities involved in Carbon farming
- Discuss various methods of Carbon Farming
- Explain various concepts of Carbon Farming
- Explain various good agricultural practices to reduce greenhouse gas emissions
- Explain various benefits of good and management practices
- Explain the significance of reducing greenhouse gas emissions
- Explain the concept of carbon trading
- Discuss about the types of carbon markets
- Demonstrate the practices or technologies which qualify for carbon farming
- Demonstrate the best land management practices to increase carbon sequestration
- Evaluate the applicability of site for undertaking certified carbon farming strategy
- Identify various strategy to measure or audit carbon and record results
- Demonstrate input management practices that improve soil organic carbon
- Discuss various methods of crop residue management
- Demonstrate the procedure to measure and record soil carbon as baseline for the change assessment
- Determine requirement for collection and reporting of geographic information, specific to method and guidelines
- Explain relevant carbon farming legislation, rules, method, technical guidance documentation and related procedures
- Demonstrate procedure to receive carbon credits

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/N6146: Ascertain the effects of climate change as a factor in farm/land management Version- 1.0 NSQF Level- 4.5	20:00	10:00	0:00	0:00	30:00

Module 1: Introduction to the role of a Carbon Farming Practitioner	02:00	0:00	0:00	0:00	02:00
Module 2: Effects of climate change as a factor in farm/land management	18:00	10:00	0:00	0:00	28:00
AGR/N6147: Analyse opportunities and risks in undertaking carbon farming **NOS Version- 1.0** **NSQF Level- 4.5**	**30:00**	**30:00**	**0:00**	**0:00**	**60:00**
Module 3: Analysing opportunities and risks in undertaking carbon farming	30:00	30:00	0:00	0:00	60:00
AGR/N6148: Increase carbon sequestration using vegetation and/or agricultural methods **NOS Version- 1.0** **NSQF Level- 4.5**	**30:00**	**60:00**	**0:00**	**0:00**	**90:00**
Module 4: Increasing carbon sequestration using vegetation and/or agricultural methods	30:00	60:00	0:00	0:00	90:00
AGR/N6149: Enhance soil organic carbon using land management and crop residue management practices **NOS Version- 1.0** **NSQF Level- 4.5**	**30:00**	**30:00**	**0:00**	**0:00**	**60:00**
Module 5: Enhancing soil organic carbon using land management and crop residue management practices	30:00	30:00	0:00	0:00	60:00
AGR/N6150: Comply with measuring and regulatory/audit requirements of carbon farming methods **NOS Version-1.0** **NSQF Level-4.5**	**30:00**	**30:00**	**0:00**	**0:00**	**60:00**
Module 6: Measuring carbon and regulatory/audit	30:00	30:00	0:00	0:00	60:00

requirements of carbon farming methods					
DGT/VSQ/N0103: Employability Skills (90 Hours) **NOS Version- 1.0** **NSQF Level- 5**	**90:00**	**00:00**	**0:00**	**00:00**	**90:00**
Module 7: Employability Skills	90:00	00:00	0:00	00:00	90:00
Module 8: On-the-Job Training (Mandatory)	**00:00**	**00:00**	**90:00**	**00:00**	**00:00**
Total Duration	**230:00**	**160:00**	**90:00**	**0:00**	**480:00**

Module Details

Module 1: Introduction to the role of a Carbon Farming Practitioner

Bridge Module, Mapped to AGR/N6146 v1.0

Terminal Outcomes:

- Discuss the job role of a Carbon Farming Practitioner

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

Module 2: Effects of climate change as a factor in farm/land management

Mapped to AGR/N6146 v1.0

Terminal Outcomes:

- Identify farm/ land management practices and other factors that contribute to climate change
- Describe the roles of vegetation, crops, animals, various abiotic factors and their management practices in greenhouse gas production
- Identify farm/land management practices that reduce greenhouse gas emissions

Duration: 18:00	**Duration: 10:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Enlist various greenhouse gases and their role in the climate change • Explain about natural and anthropogenic factors contributing to climate change and its effects on the ecosystem • Explain various environmental, economic and social benefits of good land and agricultural management practices • Explain the significance of good land and agricultural management practices and its impact on climate change • Enlist various forms of carbon and describe the carbon cycle • Discuss the harmful effects of crop residue burning • Explain about the forms of carbon in the carbon cycle, how they inter-change • Explain the causes and consequences of climate change at global and local scales	• Analyse various best land and agricultural management practices to reduce greenhouse gas emissions • Identify Farm/land management practices to reduce greenhouse gases such as methane, nitrous oxide, carbon dioxide emissions • Research the role of vegetation, soil carbon and farming practices in the mitigation of carbon dioxide levels in the atmosphere • Assess the vulnerability and resilience of farm and land systems to climate change
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
NA	

Module 3: Analysing opportunities and risks in undertaking carbon farming

Mapped to AGR/N6147 v1.0

Terminal Outcomes:

- Explain the significance of reducing greenhouse gas emissions
- Explain the concept of carbon trading
- Discuss about the types of carbon markets
- Demonstrate the practices or technologies which qualify for carbon farming

Duration: 30:00	**Duration: 30:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain about the carbon farming • Discuss the concept of carbon trading, Emission Target system (ETS) and offset schemes • Discuss about the Paris Agreement • Explain the need for reduction of greenhouse gases and India's commitment to global emission reduction targets • Discuss India's Nationally Determined Contribution (NDC) commitment to the United Nations Framework Convention on Climate Change (UNFCCC) • Describe the concept of carbon credit-Verified Emission Reductions (VER) and Certified Emission Reduction (CER) • Discuss about India's Carbon Credit Trading Scheme, 2023 • Explain various types of carbon market for carbon credits/Carbon offsets and how they work • Discuss about the Clean Development Mechanism (CDM) under the Kyoto Protocol • Explain the economic value of carbon credits • Discuss the direct benefits, ancillary benefits and risks associated with undertaking carbon farming for community, farmers or project partners at ground level	• Evaluate the suitability of land type, land use, local climate and resource availability and investment • Plan the budget for implementation of land-based carbon farming project method, including equipment, technology, preparation of land, service providers such as soil testing services, legal advice, engineering services, carbon advisor or agent • Estimate total costs of carbon farming project • Demonstrate the process of registering with the concerned Project Developer/administrative agency for carbon farming • Estimate anticipated carbon abatement through informal methods for measuring carbon • Demonstrate the practices or technologies which qualify for carbon farming • Demonstrate Carbon farming methods to store carbon or avoid emissions from agriculture, forestry and other land uses (AFOLU) • Calculate benefit-cost ratio (BCR)

• Explain technological systems required to monitor carbon farming and collect, collate and record relevant data • Explain about the services offered by carbon project developers, agents, aggregators and advisors • Explain strategies to measure or audit carbon and record results	
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
NA	

Module 4: Increasing Carbon sequestration using vegetation and/or agricultural methods

Mapped to AGR/N6148 v1.0

Terminal Outcomes:

- Demonstrate the best land management practices to increase carbon sequestration
- Plan for undertaking carbon farming
- Demonstrate the procedure to measure and record soil carbon as baseline for the change assessment

Duration: 30:00	**Duration: 60:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain about carbon sequestration and the forms of carbon sequestration • Explain the benefits of increasing atmospheric carbon sequestration and reducing Green House Gas emissions • Explain about land management practices to increase carbon sequestration or reduce greenhouse emissions using vegetation (This also includes wasteland development, Natural Farming, Agri-horticulture, horti-pastoral, farm forestry, plantations, and regeneration of native forests along with other) • Discuss the social, cultural, environmental, biotic and economic benefits associated with various practices • Explain the opportunities/risks associated with undertaking the certified carbon farming strategy • Explain the various technological and auditing services offered by the project developer • Discuss about legal or administrative permissions needed from the local Government to work with the communities • Explain the significance of baseline measurements which allow scope for improvement	• Demonstrate land management practices identified to increase carbon sequestration or reduce greenhouse emissions using vegetation (This also includes wasteland development, Natural Farming, Agri-horticulture, horti-pastoral, farm forestry, plantations, and regeneration of native forests along with other) • Demonstrate farm management practices that support carbon sequestration • Identify project developers operating in the area and the certified Carbon offsetting strategies • Evaluate the applicability of site/s for undertaking certified carbon farming strategy • Evaluate the technical and financial feasibility of undertaking carbon farming • Demonstrate strategy to measure or audit carbon and record results • Identify various strategy to measure or audit carbon and record results • Demonstrate procedure of registering with the certified project developer/administrator • Demonstrate measuring and documenting the existing carbon as baseline for assessment • Show how to monitor regularly to

	maintain carbon storage or reduced emissions through changing conditions and document ● Demonstrate the approved methods for vegetation and agriculture-based carbon farming projects
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Soil Health Card, Compost unit	

Module 5: Enhancing soil organic carbon using land management and crop residue management practices

Mapped to AGR/N6149 v1.0

Terminal Outcomes:

- Demonstrate soil moisture and water management practices that sequester carbon into soil
- Demonstrate input management practices that improve soil organic carbon
- Discuss various methods of crop residue management

Duration: 30:00	**Duration: 30:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the role, and forms, of carbon in soil • Discuss the benefits of increasing organic carbon in soil • Describe physical, chemical and biological properties of healthy soil • Explain various land management practices that have the potential to increase soil health and agricultural productivity, dependent on local climate and soil type • Discuss alternatives to crop residue burning including, residue incorporation and anaerobic digestion • Explain various approved methods for soil-based carbon farming projects • Discuss about Machinery and equipment utilized for crop residue management, their operation and maintenance	• Demonstrate soil carbon enhancing processes involving land preparation, vegetation and photosynthesis and conservation agriculture practices • Demonstrate soil moisture and water management practices that sequester carbon into soil • Demonstrate input management practices that improve soil organic carbon • select a certified strategy or method to increase soil organic carbon in confirmation with a certified project developer. • Demonstrate the procedure to measure and record soil carbon as baseline for the change assessment • Demonstrate appropriate crop residue and biomass management practices to capture and store carbon • Demonstrate operating land-forming and crop residue management machinery and equipment
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Compost, biochar, different types of biomass, land forming machinery and equipment	

Module 6: Measuring carbon and regulatory/audit requirements of carbon farming methods

Mapped to AGR/N6150 v1.0

Terminal Outcomes:

- Determine requirement for collection and reporting of geographic information, specific to method and guidelines
- Explain relevant carbon farming legislation, rules, method, technical guidance documentation and related procedures
- Demonstrate procedure to receive carbon credits
- Describe the compliance requirement for carbon audit purpose

Duration: 30:00	**Duration: 30:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain relevant carbon farming legislation, rules, method, technical guidance documentation and related procedures • Determine requirement for collection and reporting of geographic information, specific to method and guidelines • Discuss compliance requirements for the carbon farming methods • Explain the significance of collecting the data for the project • Explain about the data collection procedures associated with different carbon farming method	• Demonstrate procedure to receive carbon credits • Demonstrate use of geospatial data to define project area • Collect data according to project methodology • Interpret requirements of method and prepare to meet requirements • Demonstrate how to analyse data for an insight on carbon abatement or storage for reporting period • Show how to record data by a specified method or technical guidance documentation • Show how to ensure auditing process in line with the auditor's directions • Demonstrate the procedures to be followed to receive the carbon credits
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Desktop with internet connectivity and sample documents	

Module 7: Employability Skills (90 hours)

Mapped to NOS DGT/VSQ/N0103 v1.0

Duration: 90:00

Key Learning Outcomes

Introduction to Employability Skills Duration: 3 Hours

After completing this programme, participants will be able to:

1. Discuss the importance of Employability Skills in meeting the job requirements

Constitutional values - Citizenship Duration: 3 Hours

2. Explain constitutional values, civic rights, duties, citizenship, responsibility towards society etc. that are required to be followed to become a responsible citizen.
3. Show how to practice different environmentally sustainable practices

Becoming a Professional in the 21st Century Duration: 3 Hours

4. Discuss 21st century skills.
5. Display positive attitude, self -motivation, problem solving, time management skills and continuous learning mindset in different situations.

Basic English Skills Duration: 6 Hours

6. Use appropriate basic English sentences/phrases while speaking

Communication Skills Duration: 12 Hours

7. Demonstrate how to communicate in a well -mannered way with others.
8. Demonstrate working with others in a team

Diversity & Inclusion Duration: 3 Hours

9. Show how to conduct oneself appropriately with all genders and PwD
10. Discuss the significance of reporting sexual harassment issues in time

Financial and Legal Literacy Duration: 12 Hours

11. Discuss the significance of using financial products and services safely and securely.
12. Explain the importance of managing expenses, income, and savings.
13. Explain the significance of approaching the concerned authorities in time for any exploitation as per legal rights and laws

Essential Digital Skills Duration: 8 Hours

14. Show how to operate digital devices and use the associated applications and features, safely and securely
15. Discuss the significance of using internet for browsing, accessing social media platforms, safely and securely

Entrepreneurship Duration: 22 Hours

16. Discuss the need for identifying opportunities for potential business, sources for arranging money and potential legal and financial challenges

Customer Service Duration: 12 Hours

17. Differentiate between types of customers

18. Explain the significance of identifying customer needs and addressing them
19. Discuss the significance of maintaining hygiene and dressing appropriately

Getting ready for apprenticeship & Jobs Duration: 6 Hours

20. Create a biodata
21. Use various sources to search and apply for jobs
22. Discuss the significance of dressing up neatly and maintaining hygiene for an interview
23. Discuss how to search and register for apprenticeship opportunities

Module 8: On-the-Job Training (OJT)

Mapped to AGR/Q6112 v1.0

Duration: 90:00
Key Learning Outcomes
1. Analyse various best land and agricultural management practices to reduce greenhouse gas emissions 2. Assess the vulnerability and resilience of farm and land systems to climate change 3. Estimate anticipated carbon abatement through informal methods for measuring carbon 4. Demonstrate the practices or technologies which qualify for carbon farming 5. Demonstrate Carbon farming methods to store carbon or avoid emissions from agriculture, forestry and other land uses (AFOLU) 6. Demonstrate land management practices identified to increase carbon sequestration or reduce greenhouse emissions using vegetation 7. Demonstrate strategy to measure or audit carbon and record results 8. Demonstrate the approved methods for vegetation and agriculture-based carbon farming projects 9. Demonstrate soil carbon enhancing processes involving land preparation, vegetation and photosynthesis and conservation agriculture practices 10. Demonstrate soil moisture and water management practices that sequester carbon into soil 11. Demonstrate input management practices that improve soil organic carbon 12. Demonstrate procedure to receive carbon credits 13. Show how to record data by a specified method or technical guidance documentation 14. Demonstrate the procedures to be followed to receive the carbon credits

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	**Specialization**	**Relevant Industry Experience**		**Training Experience**		**Remarks**
		Years	***Specialization***	***Years***	***Specialization***	
Diploma	Diploma in agriculture	3	Agri Crop Production & Carbon Farming Practices	0		
Any Graduate	Graduate	2	Agri Crop Production & Carbon Farming Practices	0		
Graduate	Graduate (Agriculture / Horticulture/ Forestry)	1	Agri Crop Production & Carbon Farming Practices	0		
Post-Graduate	Post-Graduate (Agriculture / Horticulture/ Forestry)	0.5	Agri Crop Production & Carbon Farming Practices	0		

Trainer Certification	
Domain Certification	**Platform Certification**
Certified for Job Role "**Carbon Farming Practitioner**", mapped to QP: "AGR/Q6112, v1.0", 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		Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
Graduation	Agriculture/ Botany/ Horticulture/Forestry and related streams	5	Agri Crop Production & Carbon Farming Practices	0		
Post-graduation	Agriculture/ Botany/ Horticulture/Forestry and related streams	2	Agri Crop Production & Carbon Farming Practices	0		
PhD	Agronomy/Environmental Science/Forestry/Climate change & sustainability/ Ecology and related streams	1	Agri Crop Production & Carbon Farming Practices	0		

Assessor Certification	
Domain Certification	**Platform Certification**
Certified for Job Role "**Carbon Farming Practitioner**", mapped to QP: "AGR/Q6112, v1.0", Minimum accepted score is 80%	Certified for the Job Role: "Assessor (Vet and Skills)", 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 empaneled 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:

- GeoTagging 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
NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
VER	Verified Emission Reductions
CER	Certified Emission Reduction
ETS	Emissions Trading System
CDM	Clean Development Mechanism
AFOLU	Agriculture, Forestry and Other Land Uses
UNFCCC	United Nations Framework Convention on Climate Change