



# Water Resource Coordinator

Electives: Watershed/ Springshed/ Groundwater

QP Code: AGR/Q6606

Version: 2.0

NSQF Level: 4.5

Agriculture Skill Council of India || 6th Floor, GNG Tower, Plot No. 10, Sector -44, Gurgaon  
Haryana-122004 || email:mohit@advisoryfeedback.com

## Contents

AGR/Q6606: Water Resource Coordinator .....	3
<i>Brief Job Description</i> .....	3
Applicable National Occupational Standards (NOS) .....	3
<i>Compulsory NOS</i> .....	3
<i>Elective 1: Watershed</i> .....	3
<i>Elective 2: Springshed</i> .....	3
<i>Elective 3: Groundwater</i> .....	3
<i>Qualification Pack (QP) Parameters</i> .....	4
AGR/N6644: Support in managing the water resource development projects and teams .....	6
AGR/N6637: Build technical capacities of water resource assistants, community mobilizers and para geo-hydrologists .....	11
AGR/N6646: Perform project monitoring and reporting .....	15
AGR/N9903: Maintain health and safety at the workplace .....	19
DGT/VSQ/N0103: Employability Skills (90 Hours) .....	25
AGR/N6647: Guide in watershed planning and implementation .....	34
AGR/N6648: Guide in springshed planning and implementation .....	40
AGR/N6649: Guide in the planning and implementation of groundwater resource development .....	46
Assessment Guidelines and Weightage .....	51
<i>Assessment Guidelines</i> .....	51
<i>Assessment Weightage</i> .....	52
Acronyms .....	54
Glossary .....	55

## **AGR/Q6606: Water Resource Coordinator**

### **Brief Job Description**

A Water Resource Coordinator is responsible for coordinating water resource development projects, building the technical capacities of water resource assistants, community mobilizers, and para geo-hydrologists. The individual is also responsible for project monitoring and reporting. The person guides in the planning and implementation of watershed/ springshed/ groundwater resource planning and development.

### **Personal Attributes**

The individual must have strong management and organizational skills. The person must have attention to detail, problem-solving skills and excellent written and verbal communication skills.

### **Applicable National Occupational Standards (NOS)**

#### **Compulsory NOS:**

1. [AGR/N6644: Support in managing the water resource development projects and teams](#)
2. [AGR/N6637: Build technical capacities of water resource assistants, community mobilizers and para geo-hydrologists](#)
3. [AGR/N6646: Perform project monitoring and reporting](#)
4. [AGR/N9903: Maintain health and safety at the workplace](#)
5. [DGT/VSQ/N0103: Employability Skills \(90 Hours\)](#)

#### **Electives**(mandatory to select at least one):

##### **Elective 1: Watershed**

###### **Specialization in Watershed**

1. [AGR/N6647: Guide in watershed planning and implementation](#)

##### **Elective 2: Springshed**

###### **Specialization in Springshed**

1. [AGR/N6648: Guide in springshed planning and implementation](#)

##### **Elective 3: Groundwater**

## Specialization in Groundwater

### 1. [AGR/N6649: Guide in the planning and implementation of groundwater resource development](#)

## Qualification Pack (QP) Parameters

<b>Sector</b>	Agriculture
<b>Sub-Sector</b>	
<b>Occupation</b>	Watershed Management
<b>Country</b>	India
<b>NSQF Level</b>	4.5
<b>Credits</b>	18
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2015/2142.1000
<b>Minimum Educational Qualification &amp; Experience</b>	Completed 1st year of UG (UG Certificate) OR Pursuing 1st year of UG (and continuous education) OR Pursuing 3rd year of 3-year diploma after 10th (and continuous education) OR Completed 3-year diploma (after 10th) OR Completed 2nd year diploma after 12th OR Pursuing 2nd year of 2-year diploma after 12th (and continuous education) OR Previous relevant Qualification of NSQF Level (3.5) (and with minimum education as 8th grade pass) with 3 Years of experience in the relevant field OR Previous relevant Qualification of NSQF Level (4) and with minimum education as 8th grade pass with 1.5 years of experience)
<b>Minimum Level of Education for Training in School</b>	
<b>Pre-Requisite License or Training</b>	NA
<b>Minimum Job Entry Age</b>	21 Years
<b>Last Reviewed On</b>	NA

<b>Next Review Date</b>	29/03/2026
<b>Deactivation Date</b>	18/02/2025
<b>NSQC Approval Date</b>	29/03/2023
<b>Version</b>	2.0
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<b>NQR Version</b>	1

## **AGR/N6644: Support in managing the water resource development projects and teams**

### **Description**

This OS unit is about providing support to the field teams to execute water resource development projects.

### **Scope**

The scope covers the following :

- Support in managing the water resource development teams
- Handhold the team and project implementing committees

### **Elements and Performance Criteria**

#### *Support in managing the water resource development teams*

To be competent, the user/individual on the job must be able to:

- PC1.** allocate work responsibilities to water resource assistants, community mobilizers, para geo-hydrologists, facilitators, etc.
- PC2.** plan the schedule of work for team members to be carried out periodically
- PC3.** identify the training needs of team members based on their job role
- PC4.** organize training and exposure visits for team members to enhance their knowledge, skills, and attitude
- PC5.** conduct periodic team meetings to plan and review work
- PC6.** evaluate the performance of team members periodically and support them to improve their performance
- PC7.** carry out the administrative functions, such as maintaining team member attendance and leave records, giving different kinds of approvals, etc.
- PC8.** identify and resolve conflicts among the team members

#### *Handhold the team and project implementing committees*

To be competent, the user/individual on the job must be able to:

- PC9.** execute the formal processes and procedures laid down by the project
- PC10.** ensure the transparency of processes, plan, and achievement in physical and financial terms in the project
- PC11.** facilitate the visits of various stakeholders, such as funding agencies, government officials, etc.
- PC12.** organize learning workshops and events for the team members and committee members

### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- KU1.** effective project management practices
- KU2.** different types of available maps, their source, and how to read them

- KU3.** how to prepare composite maps
- KU4.** different methods of data analysis and the tools required
- KU5.** different methods of impact assessment
- KU6.** different formats and templates of water budgeting
- KU7.** how to draw graphs
- KU8.** the use of relevant software tools and mobile applications
- KU9.** the process of allocating work responsibilities to water resource assistants, community mobilizers, para geo-hydrologists, facilitators, etc.
- KU10.** how to plan the work schedule for team members
- KU11.** the importance of identifying the training needs of team members based on their job role and organizing training and exposure visits for them to enhance their knowledge, skills, and attitude
- KU12.** the importance of reviewing work through regular team meetings
- KU13.** the importance of evaluating the performance of team members periodically and supporting them to improve their performance
- KU14.** the relevant administrative functions, such as maintaining team member attendance and leave records
- KU15.** the recommended conflict resolution practices to be followed to resolve conflict among team members
- KU16.** the importance of ensuring the transparency of processes, plan, and achievement in physical and financial terms in the project
- KU17.** the requirement of visits from various stakeholders, such as funding agencies, government officials, etc.
- KU18.** the process of organizing learning workshops and events for the team members and committee members

## **Generic Skills (GS)**

User/individual on the job needs to know how to:

- GS1.** maintain work-related notes and records
- GS2.** communicate clearly and politely with co-workers and clients
- GS3.** read the relevant literature to get information about the latest developments in the field of work
- GS4.** plan and prioritize tasks to ensure timely completion
- GS5.** take quick decisions to deal with workplace emergencies/ accidents
- GS6.** listen attentively to understand the information/ instructions being shared by the speaker
- GS7.** identify possible disruptions to work and take appropriate preventive measures
- GS8.** coordinate with co-workers to achieve work objectives

**Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Support in managing the water resource development teams</i>	<b>15</b>	<b>22</b>	-	<b>15</b>
<b>PC1.</b> allocate work responsibilities to water resource assistants, community mobilizers, para geo-hydrologists, facilitators, etc.	-	-	-	-
<b>PC2.</b> plan the schedule of work for team members to be carried out periodically	-	-	-	-
<b>PC3.</b> identify the training needs of team members based on their job role	-	-	-	-
<b>PC4.</b> organize training and exposure visits for team members to enhance their knowledge, skills, and attitude	-	-	-	-
<b>PC5.</b> conduct periodic team meetings to plan and review work	-	-	-	-
<b>PC6.</b> evaluate the performance of team members periodically and support them to improve their performance	-	-	-	-
<b>PC7.</b> carry out the administrative functions, such as maintaining team member attendance and leave records, giving different kinds of approvals, etc.	-	-	-	-
<b>PC8.</b> identify and resolve conflicts among the team members	-	-	-	-
<i>Handhold the team and project implementing committees</i>	<b>15</b>	<b>18</b>	-	<b>15</b>
<b>PC9.</b> execute the formal processes and procedures laid down by the project	-	-	-	-
<b>PC10.</b> ensure the transparency of processes, plan, and achievement in physical and financial terms in the project	-	-	-	-
<b>PC11.</b> facilitate the visits of various stakeholders, such as funding agencies, government officials, etc.	-	-	-	-



Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC12.</b> organize learning workshops and events for the team members and committee members	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>40</b>	<b>-</b>	<b>30</b>

**National Occupational Standards (NOS) Parameters**

<b>NOS Code</b>	AGR/N6644
<b>NOS Name</b>	Support in managing the water resource development projects and teams
<b>Sector</b>	Agriculture
<b>Sub-Sector</b>	Forestry, Environment and Renewable Energy Management
<b>Occupation</b>	Watershed Management
<b>NSQF Level</b>	4.5
<b>Credits</b>	3
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	29/03/2026
<b>NSQC Clearance Date</b>	29/03/2023

## **AGR/N6637: Build technical capacities of water resource assistants, community mobilizers and para geo-hydrologists**

### **Description**

This OS unit is about building the capabilities of the water resource assistants, community mobilizers and para geo-hydrologists.

### **Scope**

The scope covers the following :

- Assist in preparing for the training
- Deliver the training

### **Elements and Performance Criteria**

#### *Assist in preparing for the training*

To be competent, the user/individual on the job must be able to:

- PC1.** conduct a need assessment in the learners' project areas
- PC2.** assist in preparing the training modules and calendar
- PC3.** assist in preparing the training material, e.g. presentations, posters, reference booklets, etc.
- PC4.** ensure appropriate arrangements for the training, e.g. audio-visual aids, projector, training hall, seating arrangement, stationery, whiteboard, chart paper, refreshments, and appropriate health and safety facilities
- PC5.** liaise with the relevant stakeholders, such as line department officials and panchayat representatives, to ensure appropriate arrangements for the training

#### *Deliver the training*

To be competent, the user/individual on the job must be able to:

- PC6.** mobilize the learners and organize them into batches for the training
- PC7.** conduct training for the learners, following an appropriate training method, such as classroom training or field demonstration
- PC8.** ensure to take feedback from the cadre after training to identify the scope of improvement
- PC9.** maintain the relevant evidence concerning the delivery of training, e.g. participant registration, photographs, bills, etc.
- PC10.** prepare the training report and submit it to the relevant authority
- PC11.** ensure regular interaction with the learners virtually to resolve any issues experienced after the training

### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- KU1.** the principles of pedagogy, including how to engage with the learners, such as ice-breakers
- KU2.** the importance of determining the role and background of learners

- KU3.** the relevant health and safety facilities required for training, such as first aid box, fire extinguishers, etc.
- KU4.** the importance of selecting the appropriate training material according to the learners
- KU5.** different formats and templates for various forms and reports
- KU6.** the importance and process of conducting a need assessment in the learners project areas
- KU7.** the process of preparing the training modules, training calendar and training material
- KU8.** the appropriate arrangements required for the delivery of training, such as audio-visual aids, projector, training hall, seating arrangement, stationery, health and safety facilities, etc.
- KU9.** the requirement of liaising with the relevant stakeholders, such as line department officials and panchayat representatives, to make appropriate arrangements for the training
- KU10.** how to mobilize learners and organize them into batches for the training
- KU11.** different methods of conducting training, such as classroom training or field demonstrations
- KU12.** the importance and process of taking feedback from the cadre to identify the scope of improvement in training programs
- KU13.** the importance of recording the evidence of training, e.g. participant registration, photographs, bills, etc.
- KU14.** how to prepare a training report
- KU15.** the importance of regularly interacting with the learners to resolve any issues they experience after the training and the benefit of doing it virtually

## **Generic Skills (GS)**

User/individual on the job needs to know how to:

- GS1.** maintain work-related notes and records
- GS2.** communicate clearly and politely with co-workers and clients
- GS3.** read the relevant literature to get information about the latest developments in the field of work
- GS4.** plan and prioritize tasks to ensure timely completion
- GS5.** coordinate with co-workers to achieve work objectives
- GS6.** listen attentively to understand the information/ instructions being shared by the speaker
- GS7.** identify possible disruptions to work and take appropriate preventive measures

**Assessment Criteria**

<b>Assessment Criteria for Outcomes</b>	<b>Theory Marks</b>	<b>Practical Marks</b>	<b>Project Marks</b>	<b>Viva Marks</b>
<i>Assist in preparing for the training</i>	<b>14</b>	<b>18</b>	<b>-</b>	<b>14</b>
<b>PC1.</b> conduct a need assessment in the learners' project areas	-	-	-	-
<b>PC2.</b> assist in preparing the training modules and calendar	-	-	-	-
<b>PC3.</b> assist in preparing the training material, e.g. presentations, posters, reference booklets, etc.	-	-	-	-
<b>PC4.</b> ensure appropriate arrangements for the training, e.g. audio-visual aids, projector, training hall, seating arrangement, stationery, whiteboard, chart paper, refreshments, and appropriate health and safety facilities	-	-	-	-
<b>PC5.</b> liaise with the relevant stakeholders, such as line department officials and panchayat representatives, to ensure appropriate arrangements for the training	-	-	-	-
<i>Deliver the training</i>	<b>16</b>	<b>22</b>	<b>-</b>	<b>16</b>
<b>PC6.</b> mobilize the learners and organize them into batches for the training	-	-	-	-
<b>PC7.</b> conduct training for the learners, following an appropriate training method, such as classroom training or field demonstration	-	-	-	-
<b>PC8.</b> ensure to take feedback from the cadre after training to identify the scope of improvement	-	-	-	-
<b>PC9.</b> maintain the relevant evidence concerning the delivery of training, e.g. participant registration, photographs, bills, etc.	-	-	-	-
<b>PC10.</b> prepare the training report and submit it to the relevant authority	-	-	-	-
<b>PC11.</b> ensure regular interaction with the learners virtually to resolve any issues experienced after the training	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>40</b>	<b>-</b>	<b>30</b>

**National Occupational Standards (NOS) Parameters**

<b>NOS Code</b>	AGR/N6637
<b>NOS Name</b>	Build technical capacities of water resource assistants, community mobilizers and para geo-hydrologists
<b>Sector</b>	Agriculture
<b>Sub-Sector</b>	Forestry, Environment and Renewable Energy Management
<b>Occupation</b>	Watershed Management
<b>NSQF Level</b>	4.5
<b>Credits</b>	3
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	29/03/2026
<b>NSQC Clearance Date</b>	29/03/2023

## **AGR/N6646: Perform project monitoring and reporting**

### **Description**

This OS unit is about performing project monitoring and reporting with respect to the progress in water resource planning and implementation.

### **Scope**

The scope covers the following :

- Monitor the project regularly
- Report the project progress

### **Elements and Performance Criteria**

#### *Monitor the project regularly*

To be competent, the user/individual on the job must be able to:

- PC1.** design appropriate formats, templates and frameworks to conduct regular monitoring
- PC2.** conduct regular monitoring to ensure good quality implementation of physical structures
- PC3.** monitor the physical and financial progress of the project, based on the project milestone and budget
- PC4.** monitor the project spending to ensure it is according to the project budget
- PC5.** monitor and analyse the performance of field functionaries
- PC6.** apply necessary changes in program design, capacity building and other areas based on the feedback from field functionaries

#### *Report the project progress*

To be competent, the user/individual on the job must be able to:

- PC7.** establish the prescribed record-keeping system to maintain the project records
- PC8.** ensure to take the relevant data/report(s) from the field functionaries
- PC9.** prepare the periodic physical and financial reports and submit them to the relevant authority
- PC10.** establish a system for monitoring the project impact and prepare the project impact report

### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- KU1.** the appropriate templates, formats and frameworks for monitoring and reporting project progress
- KU2.** different ways of conducting IEC activities and the materials used
- KU3.** project milestones, budget and applicable Key Performance Indicators (KPIs)
- KU4.** technical specifications of different water conservation structures
- KU5.** different institutions and mechanisms of governance
- KU6.** different frameworks for assessing the performance of field functionaries and ways of encouraging them

- KU7.** use of relevant monitoring and reporting software tools and mobile applications, such as MIS, GIS-based tools, etc.
- KU8.** the importance of conducting regular monitoring to ensure good quality implementation of physical structures
- KU9.** the importance of monitoring the physical and financial progress of the project
- KU10.** relevant mechanisms to monitor and analyze the performance of field functionaries
- KU11.** the importance of making appropriate changes in the program design, capacity building and other areas based on the feedback from field functionaries
- KU12.** the appropriate record-keeping system to maintain the project records
- KU13.** the relevant data/report(s) to be taken from field functionaries
- KU14.** the process of preparing the periodic physical and financial reports and submitting them to the relevant authority
- KU15.** the importance of establishing a system for monitoring the project impact
- KU16.** how to prepare the project impact report
- KU17.** the benefits and different types of water harvesting, e.g. rooftop water harvesting and surface runoff harvesting

### **Generic Skills (GS)**

User/individual on the job needs to know how to:

- GS1.** maintain work-related notes and records
- GS2.** communicate clearly and politely with co-workers and clients
- GS3.** read the relevant literature to get information about the latest developments in the field of work
- GS4.** plan and prioritize tasks to ensure timely completion
- GS5.** listen attentively to understand the information/ instructions being shared by the speaker
- GS6.** coordinate with co-workers to achieve work objectives
- GS7.** evaluate all possible solutions to a problem to select the best one
- GS8.** identify possible disruptions to work and take appropriate preventive measures
- GS9.** take quick decisions to deal with workplace emergencies/ accidents



**Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Monitor the project regularly</i>	<b>18</b>	<b>24</b>	-	<b>18</b>
<b>PC1.</b> design appropriate formats, templates and frameworks to conduct regular monitoring	-	-	-	-
<b>PC2.</b> conduct regular monitoring to ensure good quality implementation of physical structures	-	-	-	-
<b>PC3.</b> monitor the physical and financial progress of the project, based on the project milestone and budget	-	-	-	-
<b>PC4.</b> monitor the project spending to ensure it is according to the project budget	-	-	-	-
<b>PC5.</b> monitor and analyse the performance of field functionaries	-	-	-	-
<b>PC6.</b> apply necessary changes in program design, capacity building and other areas based on the feedback from field functionaries	-	-	-	-
<i>Report the project progress</i>	<b>12</b>	<b>16</b>	-	<b>12</b>
<b>PC7.</b> establish the prescribed record-keeping system to maintain the project records	-	-	-	-
<b>PC8.</b> ensure to take the relevant data/report(s) from the field functionaries	-	-	-	-
<b>PC9.</b> prepare the periodic physical and financial reports and submit them to the relevant authority	-	-	-	-
<b>PC10.</b> establish a system for monitoring the project impact and prepare the project impact report	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>40</b>	-	<b>30</b>

**National Occupational Standards (NOS) Parameters**

<b>NOS Code</b>	AGR/N6646
<b>NOS Name</b>	Perform project monitoring and reporting
<b>Sector</b>	Agriculture
<b>Sub-Sector</b>	Forestry, Environment and Renewable Energy Management
<b>Occupation</b>	Watershed Management
<b>NSQF Level</b>	4.5
<b>Credits</b>	3
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	29/03/2026
<b>NSQC Clearance Date</b>	29/03/2023

## **AGR/N9903: Maintain health and safety at the workplace**

### **Description**

This OS is about maintaining health and safety of self and other co-workers at the workplace

### **Scope**

The scope covers the following :

- Maintain personal hygiene
- Maintain clean and safe workplace
- Administer appropriate emergency procedures

### **Elements and Performance Criteria**

#### *Maintain personal hygiene*

To be competent, the user/individual on the job must be able to:

- PC1.** wash hands, legs and face with soap/alcohol based sanitizer at reasonable intervals
- PC2.** wash the worn clothes with soap and sun dry before use next time
- PC3.** ensure the face is covered with mask or three layers of cloth-piece
- PC4.** follow the workplace sanitization norms including distancing from sick people

#### *Maintain clean and safe workplace*

To be competent, the user/individual on the job must be able to:

- PC5.** carry out basic safety checks before operation of all tools, implements, and machinery and report identified hazards to the supervisor
- PC6.** wear appropriate Personal Protective Equipment (PPE) while performing work in accordance with the workplace policy
- PC7.** follow the instructions mentioned on the labels of chemicals/pesticides/fumigants etc to avoid hazards
- PC8.** assess risks prior to performing manual handling jobs, and work according to currently recommended safe practices
- PC9.** sanitize equipment, tools and machinery before and after use
- PC10.** use equipment and materials safely and correctly and return the same to designated storage after use
- PC11.** dispose waste safely and correctly in the designated area
- PC12.** recognize risks to bystanders and take required action to reduce the risks
- PC13.** work in a manner which minimizes environmental damage, ensuring all procedures and instructions for controlling risks are followed
- PC14.** report any accidents, incidents or problems without delay to an appropriate person and take necessary immediate action to reduce further danger
- PC15.** follow government / workplace advisories incase of outbreak of any disease/disaster

#### *Administer appropriate emergency procedures*

To be competent, the user/individual on the job must be able to:

- PC16.** follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions to the location of emergency, as per the workplace requirements
- PC17.** use emergency equipment in accordance with manufacturer's specifications and workplace requirements
- PC18.** provide treatment appropriate to the patient's injuries in accordance with recognized first aid techniques
- PC19.** recover (if practical), clean, inspect/test, refurbish, replace and store the first aid equipment as appropriate
- PC20.** report details of first aid administered in accordance with workplace procedures

### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- KU1.** relevant legislation, standards, policies, and procedures at work
- KU2.** relevant health and safety requirements applicable to the work environment
- KU3.** own job role and responsibilities and sources of information pertaining to work
- KU4.** who to approach for support in order to obtain work related information, clarifications and support
- KU5.** importance of following health, hygiene, safety and quality standards and the impact of not following the standards on consumers and the business
- KU6.** personal hygiene and fitness requirement
- KU7.** importance of sanitization of the workplace
- KU8.** types of Personal Protective Equipment (PPE) required at the workplace and their importance
- KU9.** the correct and safe way to use materials and equipment required for the work
- KU10.** the importance of good housekeeping at the workplace
- KU11.** safe waste disposal methods
- KU12.** methods for minimizing environmental damage during work
- KU13.** the risks to health and safety including contagious diseases and the measures to be taken to control those risks in the area of work
- KU14.** workplace procedures and requirements for the prevention and treatment of workplace injuries/illnesses.
- KU15.** basic emergency first aid procedure
- KU16.** local emergency services
- KU17.** why accidents, incidents and problems should be reported and the appropriate actions to be taken

### **Generic Skills (GS)**

User/individual on the job needs to know how to:

- GS1.** record the data as per the requirement
- GS2.** report problems to the appropriate personnel in a timely manner
- GS3.** read instruction manual for hand tool and equipments

- GS4.** communicate clearly and effectively with co-workers, and other stakeholders
- GS5.** comprehend information shared by senior people and experts
- GS6.** make decisions pertaining to personal hygiene and safety
- GS7.** schedule daily activities and draw up priorities
- GS8.** manage relationships with co-workers, manager and other stakeholders
- GS9.** assess situation and identify appropriate control measures

**Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Maintain personal hygiene</i>	<b>10</b>	<b>5</b>	-	<b>10</b>
<b>PC1.</b> wash hands, legs and face with soap/alcohol based sanitizer at reasonable intervals	-	-	-	-
<b>PC2.</b> wash the worn clothes with soap and sun dry before use next time	-	-	-	-
<b>PC3.</b> ensure the face is covered with mask or three layers of cloth-piece	-	-	-	-
<b>PC4.</b> follow the workplace sanitization norms including distancing from sick people	-	-	-	-
<i>Maintain clean and safe workplace</i>	<b>15</b>	<b>15</b>	-	<b>15</b>
<b>PC5.</b> carry out basic safety checks before operation of all tools, implements, and machinery and report identified hazards to the supervisor	-	-	-	-
<b>PC6.</b> wear appropriate Personal Protective Equipment (PPE) while performing work in accordance with the workplace policy	-	-	-	-
<b>PC7.</b> follow the instructions mentioned on the labels of chemicals/pesticides/fumigants etc to avoid hazards	-	-	-	-
<b>PC8.</b> assess risks prior to performing manual handling jobs, and work according to currently recommended safe practices	-	-	-	-
<b>PC9.</b> sanitize equipment, tools and machinery before and after use	-	-	-	-
<b>PC10.</b> use equipment and materials safely and correctly and return the same to designated storage after use	-	-	-	-
<b>PC11.</b> dispose waste safely and correctly in the designated area	-	-	-	-
<b>PC12.</b> recognize risks to bystanders and take required action to reduce the risks	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC13.</b> work in a manner which minimizes environmental damage, ensuring all procedures and instructions for controlling risks are followed	-	-	-	-
<b>PC14.</b> report any accidents, incidents or problems without delay to an appropriate person and take necessary immediate action to reduce further danger	-	-	-	-
<b>PC15.</b> follow government / workplace advisories incase of outbreak of any disease/disaster	-	-	-	-
<i>Administer appropriate emergency procedures</i>	<b>15</b>	<b>5</b>	-	<b>10</b>
<b>PC16.</b> follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions to the location of emergency, as per the workplace requirements	-	-	-	-
<b>PC17.</b> use emergency equipment in accordance with manufacturer's specifications and workplace requirements	-	-	-	-
<b>PC18.</b> provide treatment appropriate to the patient's injuries in accordance with recognized first aid techniques	-	-	-	-
<b>PC19.</b> recover (if practical), clean, inspect/test, refurbish, replace and store the first aid equipment as appropriate	-	-	-	-
<b>PC20.</b> report details of first aid administered in accordance with workplace procedures	-	-	-	-
<b>NOS Total</b>	<b>40</b>	<b>25</b>	-	<b>35</b>

**National Occupational Standards (NOS) Parameters**

<b>NOS Code</b>	AGR/N9903
<b>NOS Name</b>	Maintain health and safety at the workplace
<b>Sector</b>	Agriculture
<b>Sub-Sector</b>	Generic
<b>Occupation</b>	Generic
<b>NSQF Level</b>	4
<b>Credits</b>	1
<b>Version</b>	4.0
<b>Last Reviewed Date</b>	22/10/2024
<b>Next Review Date</b>	22/10/2027
<b>NSQC Clearance Date</b>	22/10/2024



## **DGT/VSQ/N0103: Employability Skills (90 Hours)**

### **Description**

This unit is about employability skills, Constitutional values, becoming a professional in the 21st Century, digital, financial, and legal literacy, diversity and Inclusion, English and communication skills, customer service, entrepreneurship, and apprenticeship, getting ready for jobs and career development.

### **Scope**

The scope covers the following :

- Introduction to Employability Skills
- Constitutional values - Citizenship
- Becoming a Professional in the 21st Century
- Basic English Skills
- Career Development & Goal Setting
- Communication Skills
- Diversity & Inclusion
- Financial and Legal Literacy
- Essential Digital Skills
- Entrepreneurship
- Customer Service
- Getting ready for Apprenticeship & Jobs

### **Elements and Performance Criteria**

#### *Introduction to Employability Skills*

To be competent, the user/individual on the job must be able to:

- PC1.** understand the significance of employability skills in meeting the current job market requirement and future of work
- PC2.** identify and explore learning and employability relevant portals
- PC3.** research about the different industries, job market trends, latest skills required and the available opportunities

#### *Constitutional values - Citizenship*

To be competent, the user/individual on the job must be able to:

- PC4.** recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.
- PC5.** follow environmentally sustainable practices

#### *Becoming a Professional in the 21st Century*

To be competent, the user/individual on the job must be able to:

- PC6.** recognize the significance of 21st Century Skills for employment
- PC7.** practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life

**PC8.** adopt a continuous learning mindset for personal and professional development

#### *Basic English Skills*

To be competent, the user/individual on the job must be able to:

**PC9.** use basic English for everyday conversation in different contexts, in person and over the telephone

**PC10.** read and understand routine information, notes, instructions, mails, letters etc. written in English

**PC11.** write short messages, notes, letters, e-mails etc. in English

#### *Career Development & Goal Setting*

To be competent, the user/individual on the job must be able to:

**PC12.** identify career goals based on the skills, interests, knowledge, and personal attributes

**PC13.** prepare a career development plan with short- and long-term goals

#### *Communication Skills*

To be competent, the user/individual on the job must be able to:

**PC14.** follow verbal and non-verbal communication etiquette while communicating in professional and public settings

**PC15.** use active listening techniques for effective communication

**PC16.** communicate in writing using appropriate style and format based on formal or informal requirements

**PC17.** work collaboratively with others in a team

#### *Diversity & Inclusion*

To be competent, the user/individual on the job must be able to:

**PC18.** communicate and behave appropriately with all genders and PwD

**PC19.** escalate any issues related to sexual harassment at workplace according to POSH Act

#### *Financial and Legal Literacy*

To be competent, the user/individual on the job must be able to:

**PC20.** identify and select reliable institutions for various financial products and services such as bank account, debit and credit cards, loans, insurance etc.

**PC21.** carry out offline and online financial transactions, safely and securely, using various methods and check the entries in the passbook

**PC22.** identify common components of salary and compute income, expenses, taxes, investments etc

**PC23.** identify relevant rights and laws and use legal aids to fight against legal exploitation

#### *Essential Digital Skills*

To be competent, the user/individual on the job must be able to:

**PC24.** operate digital devices and use their features and applications securely and safely

**PC25.** carry out basic internet operations by connecting to the internet safely and securely, using the mobile data or other available networks through Bluetooth, Wi-Fi, etc.

**PC26.** display responsible online behaviour while using various social media platforms

**PC27.** create a personal email account, send and process received messages as per requirement

**PC28.** carry out basic procedures in documents, spreadsheets and presentations using respective and appropriate applications

**PC29.** utilize virtual collaboration tools to work effectively

### *Entrepreneurship*

To be competent, the user/individual on the job must be able to:

- PC30.** identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research
- PC31.** develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion
- PC32.** identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity

### *Customer Service*

To be competent, the user/individual on the job must be able to:

- PC33.** identify different types of customers and ways to communicate with them
- PC34.** identify and respond to customer requests and needs in a professional manner
- PC35.** use appropriate tools to collect customer feedback
- PC36.** follow appropriate hygiene and grooming standards

### *Getting ready for apprenticeship & Jobs*

To be competent, the user/individual on the job must be able to:

- PC37.** create a professional Curriculum vitae (Résumé)
- PC38.** search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively
- PC39.** apply to identified job openings using offline /online methods as per requirement
- PC40.** answer questions politely, with clarity and confidence, during recruitment and selection
- PC41.** identify apprenticeship opportunities and register for it as per guidelines and requirements

## **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- KU1.** need for employability skills and different learning and employability related portals
- KU2.** various constitutional and personal values
- KU3.** different environmentally sustainable practices and their importance
- KU4.** Twenty first (21st) century skills and their importance
- KU5.** how to use English language for effective verbal (face to face and telephonic) and written communication in formal and informal set up
- KU6.** importance of career development and setting long- and short-term goals
- KU7.** about effective communication
- KU8.** POSH Act
- KU9.** Gender sensitivity and inclusivity
- KU10.** different types of financial institutes, products, and services
- KU11.** components of salary and how to compute income and expenditure
- KU12.** importance of maintaining safety and security in offline and online financial transactions
- KU13.** different legal rights and laws
- KU14.** different types of digital devices and the procedure to operate them safely and securely
- KU15.** how to create and operate an e- mail account

- KU16.** use applications such as word processors, spreadsheets etc.
- KU17.** how to identify business opportunities
- KU18.** types and needs of customers
- KU19.** how to apply for a job and prepare for an interview
- KU20.** apprenticeship scheme and the process of registering on apprenticeship portal

### **Generic Skills (GS)**

User/individual on the job needs to know how to:

- GS1.** read and write different types of documents/instructions/correspondence in English and other languages
- GS2.** communicate effectively using appropriate language in formal and informal settings
- GS3.** behave politely and appropriately with all to maintain effective work relationship
- GS4.** how to work in a virtual mode, using various technological platforms
- GS5.** perform calculations efficiently
- GS6.** solve problems effectively
- GS7.** pay attention to details
- GS8.** manage time efficiently
- GS9.** maintain hygiene and sanitization to avoid infection

**Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Introduction to Employability Skills</i>	<b>1</b>	<b>1</b>	-	-
<b>PC1.</b> understand the significance of employability skills in meeting the current job market requirement and future of work	-	-	-	-
<b>PC2.</b> identify and explore learning and employability relevant portals	-	-	-	-
<b>PC3.</b> research about the different industries, job market trends, latest skills required and the available opportunities	-	-	-	-
<i>Constitutional values – Citizenship</i>	<b>1</b>	<b>1</b>	-	-
<b>PC4.</b> recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.	-	-	-	-
<b>PC5.</b> follow environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	<b>1</b>	<b>3</b>	-	-
<b>PC6.</b> recognize the significance of 21st Century Skills for employment	-	-	-	-
<b>PC7.</b> practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life	-	-	-	-
<b>PC8.</b> adopt a continuous learning mindset for personal and professional development	-	-	-	-
<i>Basic English Skills</i>	<b>3</b>	<b>4</b>	-	-
<b>PC9.</b> use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC10.</b> read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
<b>PC11.</b> write short messages, notes, letters, e-mails etc. in English	-	-	-	-
<i>Career Development &amp; Goal Setting</i>	<b>1</b>	<b>2</b>	-	-
<b>PC12.</b> identify career goals based on the skills, interests, knowledge, and personal attributes	-	-	-	-
<b>PC13.</b> prepare a career development plan with short- and long-term goals	-	-	-	-
<i>Communication Skills</i>	<b>2</b>	<b>2</b>	-	-
<b>PC14.</b> follow verbal and non-verbal communication etiquette while communicating in professional and public settings	-	-	-	-
<b>PC15.</b> use active listening techniques for effective communication	-	-	-	-
<b>PC16.</b> communicate in writing using appropriate style and format based on formal or informal requirements	-	-	-	-
<b>PC17.</b> work collaboratively with others in a team	-	-	-	-
<i>Diversity &amp; Inclusion</i>	<b>1</b>	<b>1</b>	-	-
<b>PC18.</b> communicate and behave appropriately with all genders and PwD	-	-	-	-
<b>PC19.</b> escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
<i>Financial and Legal Literacy</i>	<b>2</b>	<b>3</b>	-	-
<b>PC20.</b> identify and select reliable institutions for various financial products and services such as bank account, debit and credit cards, loans, insurance etc.	-	-	-	-
<b>PC21.</b> carry out offline and online financial transactions, safely and securely, using various methods and check the entries in the passbook	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC22.</b> identify common components of salary and compute income, expenses, taxes, investments etc	-	-	-	-
<b>PC23.</b> identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
<i>Essential Digital Skills</i>	<b>3</b>	<b>5</b>	-	-
<b>PC24.</b> operate digital devices and use their features and applications securely and safely	-	-	-	-
<b>PC25.</b> carry out basic internet operations by connecting to the internet safely and securely, using the mobile data or other available networks through Bluetooth, Wi-Fi, etc.	-	-	-	-
<b>PC26.</b> display responsible online behaviour while using various social media platforms	-	-	-	-
<b>PC27.</b> create a personal email account, send and process received messages as per requirement	-	-	-	-
<b>PC28.</b> carry out basic procedures in documents, spreadsheets and presentations using respective and appropriate applications	-	-	-	-
<b>PC29.</b> utilize virtual collaboration tools to work effectively	-	-	-	-
<i>Entrepreneurship</i>	<b>2</b>	<b>3</b>	-	-
<b>PC30.</b> identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
<b>PC31.</b> develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-
<b>PC32.</b> identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
<i>Customer Service</i>	<b>1</b>	<b>2</b>	-	-
<b>PC33.</b> identify different types of customers and ways to communicate with them	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC34.</b> identify and respond to customer requests and needs in a professional manner	-	-	-	-
<b>PC35.</b> use appropriate tools to collect customer feedback	-	-	-	-
<b>PC36.</b> follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship &amp; Jobs</i>	<b>2</b>	<b>3</b>	-	-
<b>PC37.</b> create a professional Curriculum vitae (Résumé)	-	-	-	-
<b>PC38.</b> search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
<b>PC39.</b> apply to identified job openings using offline /online methods as per requirement	-	-	-	-
<b>PC40.</b> answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
<b>PC41.</b> identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
<b>NOS Total</b>	<b>20</b>	<b>30</b>	-	-



**National Occupational Standards (NOS) Parameters**

<b>NOS Code</b>	DGT/VSQ/N0103
<b>NOS Name</b>	Employability Skills (90 Hours)
<b>Sector</b>	Cross Sectoral
<b>Sub-Sector</b>	Professional Skills
<b>Occupation</b>	Employability
<b>NSQF Level</b>	5
<b>Credits</b>	3
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	18/02/2025
<b>Next Review Date</b>	18/02/2028
<b>NSQC Clearance Date</b>	18/02/2025

## **AGR/N6647: Guide in watershed planning and implementation**

### **Description**

This OS unit is about guiding in the planning and implementation of watershed projects.

### **Scope**

The scope covers the following :

- Arrange and analyze the relevant maps
- Guide in watershed planning and preparing the DPR
- Guide in the implementation

### **Elements and Performance Criteria**

#### *Arrange and analyze the relevant maps*

To be competent, the user/individual on the job must be able to:

- PC1.** arrange the relevant maps for analysis
- PC2.** analyze the relevant maps and record the findings for the team
- PC3.** ensure the correct demarcation of the watershed boundary on the toposheet and the calculation of watershed area on the toposheet

#### *Guide in watershed planning and preparing the DPR*

To be competent, the user/individual on the job must be able to:

- PC4.** ensure the use of relevant maps in watershed planning
- PC5.** guide the field functionaries in conducting the field survey, selecting the appropriate site, and estimating the applicable costs for watershed planning
- PC6.** ensure the availability of the relevant types of data for preparing the DPR
- PC7.** supervise the detailed technical surveys, such as L-section, cross-section, and estimation of major water harvesting structures
- PC8.** ensure the assessment of water quality as per the applicable method
- PC9.** guide the compilation and analysis of relevant data for the preparation of DPR
- PC10.** guide in finalizing the design and structure and preparing the design estimates
- PC11.** ensure effective provisions for monitoring the physical and financial progress of the project and the impact of interventions on the underprivileged sections of the community

#### *Guide in the implementation of watershed project*

To be competent, the user/individual on the job must be able to:

- PC12.** ensure the field functionaries understand the DPR and it is presented to the community and watershed committee
- PC13.** guide the preparation of the seasonal calendar for the implementation of watershed interventions
- PC14.** ensure effective worksite management, including work allotment and labour management
- PC15.** supervise the maintenance of relevant records, preparation of work completion report and payment sheet, and disbursement of wages

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the watershed concept, including the ridge area, ridge line, drainage line, etc.
- KU2.** the geological and hydrogeological mapping
- KU3.** the identification and delineation of recharge and discharge area
- KU4.** the process of compiling data and preparing a DPR
- KU5.** the significance of geohydrology in watershed planning
- KU6.** the procedures related to socio-technical concepts and practices in participatory and integrated watershed management
- KU7.** the relevant watershed planning exercises followed by the organization
- KU8.** the soil and water conservation technologies, social mobilization tools, research methodologies, and the appropriate watershed planning tools
- KU9.** the basics of handling teams of different expertise
- KU10.** communication and linkage-building expertise
- KU11.** the use of relevant maps for analysis and watershed planning
- KU12.** the importance of ensuring the correct demarcation of the watershed boundary on the toposheet and the calculation of watershed area on the toposheet
- KU13.** the process of conducting the field survey, selecting the appropriate site, and estimating the applicable costs for watershed planning
- KU14.** the relevant types of data required for preparing the DPR and how to prepare a DPR
- KU15.** how to conduct detailed technical surveys, such as L-section, cross-section, and estimation of major water harvesting structures
- KU16.** the process of assessing the water quality for watershed planning
- KU17.** the importance of monitoring the physical and financial progress of the project and the impact of interventions on the underprivileged sections of the community
- KU18.** the importance of explaining the DPR to field functionaries and taking feedback from the community and watershed committee
- KU19.** the process of preparing the seasonal calendar for the implementation of watershed interventions
- KU20.** effective worksite management practices
- KU21.** the process of maintaining the relevant records, preparing the work completion report and payment sheet, and disbursing wages to field workers

## Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** maintain work-related notes and records
- GS2.** communicate clearly and politely with co-workers and clients
- GS3.** read the relevant literature to get information about the latest developments in the field of work
- GS4.** plan and prioritize tasks to ensure timely completion
- GS5.** listen attentively to understand the information/ instructions being shared by the speaker

- GS6.** coordinate with co-workers to achieve work objectives
- GS7.** take quick decisions to deal with workplace emergencies/ accidents
- GS8.** identify possible disruptions to work and take appropriate preventive measures

**Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Arrange and analyze the relevant maps</i>	<b>9</b>	<b>15</b>	-	<b>9</b>
<b>PC1.</b> arrange the relevant maps for analysis	-	-	-	-
<b>PC2.</b> analyze the relevant maps and record the findings for the team	-	-	-	-
<b>PC3.</b> ensure the correct demarcation of the watershed boundary on the toposheet and the calculation of watershed area on the toposheet	-	-	-	-
<i>Guide in watershed planning and preparing the DPR</i>	<b>11</b>	<b>10</b>	-	<b>11</b>
<b>PC4.</b> ensure the use of relevant maps in watershed planning	-	-	-	-
<b>PC5.</b> guide the field functionaries in conducting the field survey, selecting the appropriate site, and estimating the applicable costs for watershed planning	-	-	-	-
<b>PC6.</b> ensure the availability of the relevant types of data for preparing the DPR	-	-	-	-
<b>PC7.</b> supervise the detailed technical surveys, such as L-section, cross-section, and estimation of major water harvesting structures	-	-	-	-
<b>PC8.</b> ensure the assessment of water quality as per the applicable method	-	-	-	-
<b>PC9.</b> guide the compilation and analysis of relevant data for the preparation of DPR	-	-	-	-
<b>PC10.</b> guide in finalizing the design and structure and preparing the design estimates	-	-	-	-
<b>PC11.</b> ensure effective provisions for monitoring the physical and financial progress of the project and the impact of interventions on the underprivileged sections of the community	-	-	-	-
<i>Guide in the implementation of watershed project</i>	<b>10</b>	<b>15</b>	-	<b>10</b>
<b>PC12.</b> ensure the field functionaries understand the DPR and it is presented to the community and watershed committee	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC13.</b> guide the preparation of the seasonal calendar for the implementation of watershed interventions	-	-	-	-
<b>PC14.</b> ensure effective worksite management, including work allotment and labour management	-	-	-	-
<b>PC15.</b> supervise the maintenance of relevant records, preparation of work completion report and payment sheet, and disbursement of wages	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>40</b>	<b>-</b>	<b>30</b>

**National Occupational Standards (NOS) Parameters**

<b>NOS Code</b>	AGR/N6647
<b>NOS Name</b>	Guide in watershed planning and implementation
<b>Sector</b>	Agriculture
<b>Sub-Sector</b>	Forestry, Environment and Renewable Energy Management
<b>Occupation</b>	Watershed Management
<b>NSQF Level</b>	4.5
<b>Credits</b>	1
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	29/03/2026
<b>NSQC Clearance Date</b>	29/03/2023

## **AGR/N6648: Guide in springshed planning and implementation**

### **Description**

This OS unit is about guiding in delineation, preparing the Detailed Project Report (DPR), and implementing the springshed interventions.

### **Scope**

The scope covers the following :

- Arrange and analyze the relevant maps
- Guide in springshed planning and preparing the DPR
- Guide in the implementation

### **Elements and Performance Criteria**

#### *Arrange and analyze the relevant maps*

To be competent, the user/individual on the job must be able to:

- PC1.** arrange the relevant maps for analysis
- PC2.** analyze the maps and record the findings for the team
- PC3.** ensure the correct demarcation of springshed boundary and calculation of springshed area

#### *Guide in springshed planning and preparing the DPR*

To be competent, the user/individual on the job must be able to:

- PC4.** ensure the use of appropriate maps in springshed planning
- PC5.** guide the field functionaries to ensure correct baseflow measurement, field survey, site selection, and cost estimation
- PC6.** ensure the availability of different types of data for the preparation of DPR
- PC7.** supervise the detailed technical surveys for spring chamber, catchment protection measures, diversion-based water distribution system, and estimation of different water conservation and distribution structures
- PC8.** ensure the assessment of water quality as per the prescribed procedure
- PC9.** guide the compilation and analysis of data for DPR preparation
- PC10.** guide in finalizing the design and structure and preparing the design estimates
- PC11.** ensure effective provisions for monitoring the physical and financial progress of the project and the impact of interventions on the underprivileged sections of the community

#### *Guide in the implementation*

To be competent, the user/individual on the job must be able to:

- PC12.** ensure the field functionaries understand the DPR and it is presented to the community and springshed committee
- PC13.** supervise the preparation of the seasonal calendar for the implementation of springshed interventions
- PC14.** ensure effective worksite management, including layout marking, labour management, work allotment, measurements, etc.



- PC15.** supervise the maintenance of relevant records, verification of work completion, preparation of work completion report and payment sheet, and disbursement of wages

## **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- KU1.** the procedures related to socio-technical concepts and practices in participatory and integrated springshed management
- KU2.** the relevant springshed planning exercises followed by the organization
- KU3.** the soil and water conservation technologies, social mobilization tools, research methodologies, and the appropriate springshed planning tools
- KU4.** the basics of handling teams of different expertise
- KU5.** communication and linkage-building expertise
- KU6.** the relevant maps required for analysis and springshed planning
- KU7.** the importance of ensuring the correct demarcation of springshed boundary and calculation of springshed area
- KU8.** the importance of ensuring correct baseflow measurement, field survey, site selection, and cost estimation
- KU9.** different types of data required for the preparation of DPR for a springshed project
- KU10.** the process of preparing a DPR for a springshed project
- KU11.** the process of conducting detailed technical surveys for spring chamber, catchment protection measures, diversion-based water distribution system, and estimation of different water conservation and distribution structures
- KU12.** the process of assessing the water quality for springshed planning
- KU13.** the importance of monitoring the physical and financial progress of the project and the impact of interventions on the underprivileged sections of the community
- KU14.** the importance of presenting the DPR to the community and springshed committee
- KU15.** the preparation of the seasonal calendar for the implementation of springshed interventions
- KU16.** the relevant records to be maintained, such as the records concerning the verification of work completion, preparation of work completion report and payment sheet, and disbursement of wages

## **Generic Skills (GS)**

User/individual on the job needs to know how to:

- GS1.** maintain work-related notes and records
- GS2.** communicate clearly and politely with co-workers and clients
- GS3.** read the relevant literature to get information about the latest developments in the field of work
- GS4.** plan and prioritize tasks to ensure timely completion
- GS5.** listen attentively to understand the information/ instructions being shared by the speaker
- GS6.** coordinate with co-workers to achieve work objectives
- GS7.** take quick decisions to deal with workplace emergencies/ accidents

**GS8.** identify possible disruptions to work and take appropriate preventive measures

**Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Arrange and analyze the relevant maps</i>	<b>11</b>	<b>15</b>	-	<b>10</b>
<b>PC1.</b> arrange the relevant maps for analysis	-	-	-	-
<b>PC2.</b> analyze the maps and record the findings for the team	-	-	-	-
<b>PC3.</b> ensure the correct demarcation of springshed boundary and calculation of springshed area	-	-	-	-
<i>Guide in springshed planning and preparing the DPR</i>	<b>10</b>	<b>13</b>	-	<b>11</b>
<b>PC4.</b> ensure the use of appropriate maps in springshed planning	-	-	-	-
<b>PC5.</b> guide the field functionaries to ensure correct baseflow measurement, field survey, site selection, and cost estimation	-	-	-	-
<b>PC6.</b> ensure the availability of different types of data for the preparation of DPR	-	-	-	-
<b>PC7.</b> supervise the detailed technical surveys for spring chamber, catchment protection measures, diversion-based water distribution system, and estimation of different water conservation and distribution structures	-	-	-	-
<b>PC8.</b> ensure the assessment of water quality as per the prescribed procedure	-	-	-	-
<b>PC9.</b> guide the compilation and analysis of data for DPR preparation	-	-	-	-
<b>PC10.</b> guide in finalizing the design and structure and preparing the design estimates	-	-	-	-
<b>PC11.</b> ensure effective provisions for monitoring the physical and financial progress of the project and the impact of interventions on the underprivileged sections of the community	-	-	-	-
<i>Guide in the implementation</i>	<b>9</b>	<b>12</b>	-	<b>9</b>

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC12.</b> ensure the field functionaries understand the DPR and it is presented to the community and springshed committee	-	-	-	-
<b>PC13.</b> supervise the preparation of the seasonal calendar for the implementation of springshed interventions	-	-	-	-
<b>PC14.</b> ensure effective worksite management, including layout marking, labour management, work allotment, measurements, etc.	-	-	-	-
<b>PC15.</b> supervise the maintenance of relevant records, verification of work completion, preparation of work completion report and payment sheet, and disbursement of wages	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>40</b>	<b>-</b>	<b>30</b>

**National Occupational Standards (NOS) Parameters**

<b>NOS Code</b>	AGR/N6648
<b>NOS Name</b>	Guide in springshed planning and implementation
<b>Sector</b>	Agriculture
<b>Sub-Sector</b>	Forestry, Environment and Renewable Energy Management
<b>Occupation</b>	Watershed Management
<b>NSQF Level</b>	4.5
<b>Credits</b>	1
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	29/03/2026
<b>NSQC Clearance Date</b>	29/03/2023

## **AGR/N6649: Guide in the planning and implementation of groundwater resource development**

### **Description**

This OS unit is about guiding in aquifer mapping, preparing the Detailed Project Report (DPR), and implementing the groundwater resource development interventions.

### **Scope**

The scope covers the following :

- Arrange and analyze the relevant maps
- Guide in groundwater resource development planning
- Assist and guide in preparing the DPR
- Assist and guide in the implementation

### **Elements and Performance Criteria**

#### *Arrange and analyze the relevant maps*

To be competent, the user/individual on the job must be able to:

- PC1.** arrange the relevant maps, such as the aquifer, geological, cadastral, spatial, and other thematic maps for analysis
- PC2.** analyze the water table contour lines

#### *Guide in groundwater resource development planning*

To be competent, the user/individual on the job must be able to:

- PC3.** ensure the use of different maps for groundwater resource development planning
- PC4.** supervise the process of field survey, site selection, and cost estimation
- PC5.** ensure the assessment of water quality as per the prescribed procedure
- PC6.** guide the process of carrying out the well inventory
- PC7.** guide in finalizing the design and structure and preparing the design estimates
- PC8.** ensure effective provisions for monitoring the physical and financial progress of the project and the impact of interventions on the underprivileged sections of the community

#### *Guide in preparing the DPR*

To be competent, the user/individual on the job must be able to:

- PC9.** ensure the availability of different types of data for the preparation of DPR
- PC10.** supervise the technical surveys for recharge and discharge structures, catchment protection measures, water distribution/ sharing system, and estimation of different water conservation and distribution structures
- PC11.** guide in the compilation and analysis of data for DPR preparation

#### *Guide in the implementation*

To be competent, the user/individual on the job must be able to:

- PC12.** ensure the field functionaries understand the DPR and it is presented to the community and groundwater management committee or other relevant committees

- PC13.** guide the preparation of the seasonal calendar for the implementation of groundwater resource development interventions
- PC14.** guide the field functionaries in worksite management, i.e. layout marking, labour management, work allotment, measurements, etc.
- PC15.** guide the field functionaries in maintaining different records, such as the cashbook, ledger, stock register, attendance sheet, measurement book, etc.
- PC16.** assist in the verification of completion of work and prepare the work completion report
- PC17.** assist in the preparation of payment sheet and disbursement of wages

## **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- KU1.** the geological and hydrogeological mapping
- KU2.** the significance of geohydrology in groundwater resource planning
- KU3.** the procedures related to socio-technical concepts and practices in participatory and integrated groundwater resource management
- KU4.** the conjunctive use of water
- KU5.** the relevant groundwater resource development and planning exercises followed by the organization
- KU6.** the soil and water conservation technologies, social mobilization tools, research methodologies, and the appropriate groundwater resource development and planning tools
- KU7.** the basics of handling teams of different expertise and the appropriate linkage-building expertise
- KU8.** the relevant maps required for the analysis and groundwater resource development and planning, such as the aquifer, geological, cadastral, spatial and other thematic maps for analysis
- KU9.** the process of analyzing the water table contour lines
- KU10.** the process of conducting field surveys, site selection, and cost estimation for groundwater resource development and planning
- KU11.** the process of assessing the water quality for groundwater resource development and planning
- KU12.** the importance of monitoring the physical and financial progress of the project and the impact of interventions on the underprivileged sections of the community
- KU13.** the process of carrying out well inventory
- KU14.** the different types of data required for preparing a DPR and the process of preparing one
- KU15.** the process of conducting technical surveys for recharge and discharge structures, catchment protection measures, water distribution/ sharing system, and estimation of different water conservation and distribution structures
- KU16.** the importance of explaining the DPR and taking feedback from the community and groundwater management committee or other relevant committees
- KU17.** the preparation of the seasonal calendar for the implementation of groundwater resource development interventions
- KU18.** the effective worksite management practices

- KU19.** the different records to be maintained, such as the cashbook, ledger, stock register, attendance sheet, measurement book, etc.
- KU20.** the process of verifying the completion of work and preparing the work completion report
- KU21.** how to prepare the payment sheet and disbursement of wages

### **Generic Skills (GS)**

User/individual on the job needs to know how to:

- GS1.** maintain work-related notes and records
- GS2.** communicate clearly and politely with co-workers and clients
- GS3.** read the relevant literature to get information about the latest developments in the field of work
- GS4.** plan and prioritize tasks to ensure timely completion
- GS5.** listen attentively to understand the information/ instructions being shared by the speaker
- GS6.** coordinate with co-workers to achieve work objectives
- GS7.** take quick decisions to deal with workplace emergencies/ accidents
- GS8.** identify possible disruptions to work and take appropriate preventive measures



**Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Arrange and analyze the relevant maps</i>	<b>7</b>	<b>9</b>	-	<b>6</b>
<b>PC1.</b> arrange the relevant maps, such as the aquifer, geological, cadastral, spatial, and other thematic maps for analysis	-	-	-	-
<b>PC2.</b> analyze the water table contour lines	-	-	-	-
<i>Guide in groundwater resource development planning</i>	<b>7</b>	<b>12</b>	-	<b>7</b>
<b>PC3.</b> ensure the use of different maps for groundwater resource development planning	-	-	-	-
<b>PC4.</b> supervise the process of field survey, site selection, and cost estimation	-	-	-	-
<b>PC5.</b> ensure the assessment of water quality as per the prescribed procedure	-	-	-	-
<b>PC6.</b> guide the process of carrying out the well inventory	-	-	-	-
<b>PC7.</b> guide in finalizing the design and structure and preparing the design estimates	-	-	-	-
<b>PC8.</b> ensure effective provisions for monitoring the physical and financial progress of the project and the impact of interventions on the underprivileged sections of the community	-	-	-	-
<i>Guide in preparing the DPR</i>	<b>8</b>	<b>10</b>	-	<b>9</b>
<b>PC9.</b> ensure the availability of different types of data for the preparation of DPR	-	-	-	-
<b>PC10.</b> supervise the technical surveys for recharge and discharge structures, catchment protection measures, water distribution/ sharing system, and estimation of different water conservation and distribution structures	-	-	-	-
<b>PC11.</b> guide in the compilation and analysis of data for DPR preparation	-	-	-	-
<i>Guide in the implementation</i>	<b>8</b>	<b>9</b>	-	<b>8</b>

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC12.</b> ensure the field functionaries understand the DPR and it is presented to the community and groundwater management committee or other relevant committees	-	-	-	-
<b>PC13.</b> guide the preparation of the seasonal calendar for the implementation of groundwater resource development interventions	-	-	-	-
<b>PC14.</b> guide the field functionaries in worksite management, i.e. layout marking, labour management, work allotment, measurements, etc.	-	-	-	-
<b>PC15.</b> guide the field functionaries in maintaining different records, such as the cashbook, ledger, stock register, attendance sheet, measurement book, etc.	-	-	-	-
<b>PC16.</b> assist in the verification of completion of work and prepare the work completion report	-	-	-	-
<b>PC17.</b> assist in the preparation of payment sheet and disbursement of wages	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>40</b>	<b>-</b>	<b>30</b>

## National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	AGR/N6649
<b>NOS Name</b>	Guide in the planning and implementation of groundwater resource development
<b>Sector</b>	Agriculture
<b>Sub-Sector</b>	Forestry, Environment and Renewable Energy Management
<b>Occupation</b>	Watershed Management
<b>NSQF Level</b>	4.5
<b>Credits</b>	1
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	29/03/2026
<b>NSQC Clearance Date</b>	29/03/2023

## Assessment Guidelines and Assessment Weightage

### Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
5. In case of successfully passing only certain number of NOSs, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.
6. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack

**Minimum Aggregate Passing % at QP Level : 70**

(Please note: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

**Assessment Weightage**

## Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
AGR/N6644.Support in managing the water resource development projects and teams	30	40	0	30	100	25
AGR/N6637.Build technical capacities of water resource assistants, community mobilizers and para geo-hydrologists	30	40	0	30	100	25
AGR/N6646.Perform project monitoring and reporting	30	40	0	30	100	20
AGR/N9903.Maintain health and safety at the workplace	40	25	-	35	100	5
DGT/VSQ/N0103.Employability Skills (90 Hours)	20	30	-	-	50	5
<b>Total</b>	<b>150</b>	<b>175</b>	<b>-</b>	<b>125</b>	<b>450</b>	<b>80</b>

## Elective: 1 Watershed

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
AGR/N6647.Guide in watershed planning and implementation	30	40	0	30	100	20
<b>Total</b>	<b>30</b>	<b>40</b>	<b>-</b>	<b>30</b>	<b>100</b>	<b>20</b>

## Elective: 2 Springshed

<b>National Occupational Standards</b>	<b>Theory Marks</b>	<b>Practical Marks</b>	<b>Project Marks</b>	<b>Viva Marks</b>	<b>Total Marks</b>	<b>Weightage</b>
AGR/N6648.Guide in springshed planning and implementation	30	40	0	30	100	20
<b>Total</b>	<b>30</b>	<b>40</b>	<b>-</b>	<b>30</b>	<b>100</b>	<b>20</b>

## Elective: 3 Groundwater

<b>National Occupational Standards</b>	<b>Theory Marks</b>	<b>Practical Marks</b>	<b>Project Marks</b>	<b>Viva Marks</b>	<b>Total Marks</b>	<b>Weightage</b>
AGR/N6649.Guide in the planning and implementation of groundwater resource development	30	40	0	30	100	20
<b>Total</b>	<b>30</b>	<b>40</b>	<b>-</b>	<b>30</b>	<b>100</b>	<b>20</b>

## Acronyms

<b>NOS</b>	National Occupational Standard(s)
<b>NSQF</b>	National Skills Qualifications Framework
<b>QP</b>	Qualifications Pack
<b>TVET</b>	Technical and Vocational Education and Training
<b>PPE</b>	Personal Protective Equipment

## Glossary

<b>Sector</b>	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
<b>Sub-sector</b>	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
<b>Occupation</b>	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
<b>Job role</b>	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
<b>Occupational Standards (OS)</b>	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
<b>Performance Criteria (PC)</b>	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
<b>National Occupational Standards (NOS)</b>	NOS are occupational standards which apply uniquely in the Indian context.
<b>Qualifications Pack (QP)</b>	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
<b>Unit Code</b>	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
<b>Unit Title</b>	Unit title gives a clear overall statement about what the incumbent should be able to do.
<b>Description</b>	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
<b>Scope</b>	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.
<b>Knowledge and Understanding (KU)</b>	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.

<b>Organisational Context</b>	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
<b>Technical Knowledge</b>	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
<b>Core Skills/ Generic Skills (GS)</b>	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
<b>Electives</b>	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
<b>Options</b>	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.