

## NSQF QUALIFICATION FILE

approved in the 28th NSQC Meeting – NCVET – 29th March 2023

### CONTACT DETAILS OF THE BODY SUBMITTING THE QUALIFICATION FILE

**Name and address of submitting body:**

Agriculture Skill Council of India (ASCI)

6<sup>th</sup> floor, GNG Building, Plot No – 10, Sector- 44, Gurugram,  
Haryana – 122004

**Qualification Code**

**QG-04-AG-00380-2023-V1-ASCI**

### Name and contact details of individual dealing with the submission

**Name:** Ms Priyanka Prakash

**Position in the organisation:** Senior Manager – Standards & QA

**Address, if different from above**

**Tel number(s):** 0124 – 4670029/ 4814673/ 4814659

**E-mail address:** priyanka@asci-india.com

### List of documents submitted in support of the Qualifications File

1. Qualifications Pack – Annexure 1
2. Model Curriculum – Annexure 2
3. Industry Validations- Annexure 3

### Model Curriculum to be added which will include the following:

- Indicative list of tools/equipment to conduct the training
- Trainers qualification
- Lesson Plan
- Distribution of training duration into theory/practical/OJT component

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### SUMMARY

1	<b>Qualification Title</b>	Para Geohydrologist
2	<b>Qualification Code, if any</b>	AGR/Q6602, v2.0
3	<b>NCO code and occupation</b>	NCO-2015/NIL, Watershed Management
4	<b>Nature and purpose of the qualification (Please specify whether qualification is short term or long term)</b>	Nature of the qualification- a Qualification Pack (QP) The individual will be responsible for carrying out the landscape survey, preparing the Detailed Project Report (DPR)
5	<b>Body/bodies which will award the qualification</b>	Agriculture Skill Council of India (ASCI)
6	<b>Body which will accredit providers to offer courses leading to the qualification</b>	Agriculture Skill Council of India (ASCI)
7	<b>Whether accreditation/affiliation norms are already in place or not, if applicable (if yes, attach a copy)</b>	Yes (Annexure 3)
8	<b>Occupation(s) to which the qualification gives access</b>	Watershed Management
9	<b>Job description of the occupation</b>	A Para Geohydrologist is responsible for carrying out the landscape survey, preparing the Detailed Project Report (DPR), water budgeting for watershed/springshed, and data management for the watershed, springshed and groundwater interventions. The individual is also responsible for guiding in identifying the appropriate site for soil and water conservation and construction of Water Harvesting Structures (WHS) and assisting the village community in capacity-building.
10	<b>Licensing requirements</b>	NA
11	<b>Statutory and Regulatory requirement of the relevant sector (documentary evidence to be provided)</b>	NA
12	<b>Level of the qualification in the NSQF</b>	Level 4
13	<b>Anticipated volume of training/learning required to complete the qualification</b>	Total Duration: 390 Hours  Compulsory Modules: 330 Hours (Theory: 120 Hours, Practical: 150 Hours, ES: 60 Hours)  OJT: 60 Hours

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14	Indicative list of training tools required to deliver this qualification	Attached herewith		
15	Entry requirements and/or recommendations and minimum age	12th grade pass OR 10th grade pass with 2 years of relevant experience OR Previous relevant qualification of NSQF Level 3.0 with minimum education as 8th grade pass with 3 years of relevant experience OR Previous relevant qualification of NSQF Level 3.5 with 1.5 years of relevant experience 18 Years		
16	Progression from the qualification (Please show Professional and academic progression)	Water Resource Coordinator (NSQF Level 4.5)		
17	Arrangements for the Recognition of Prior learning (RPL)	RPL assessment will be as per normal ASCI assessment process.  (ASCI recognizes that there may be candidates who have prior learning experience in the Agriculture Sector and are desirous of being certified. Such candidates can apply to ASCI for testing and certification of their skills. Training Partners will be responsible for identifying and		
18	International comparability where known (research evidence to be provided)	Not done as yet		
19	Date of planned review of the qualification.	3 years post NSQC Approval		
20	Formal structure of the qualification Mandatory components			
	Title of component and identification code/NOSs/Learning outcomes	Estimated size (learning hours)		Level
		Theory	Practical	
(i)	Introduction (Bridge Module)	05	00	
(ii)	AGR/N6618: Carry out landscape survey and assist in preparing the Detailed Project Report (DPR)	20	35	4
(iii)	AGR/N6605: Assist in carrying out water budgeting for the watershed/springshed	15	15	4
(iv)	AGR/N6650: Plan, implement and monitor watershed, springshed and groundwater projects	30	30	4

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(v)	AGR/N6613: Carry out data management for watershed, springshed and groundwater interventions	15	15	4
(vi)	AGR/N6604: Guide and support the community in soil and water conservation	15	15	4
(vii)	AGR/N6621: Assist the village community in capacity-building	15	15	4
(viii)	AGR/N9903: Maintain health and safety at the workplace	05	25	4
(ix)	DGT/VSQ/N0102: Employability Skills (60 Hours)	60	00	4
	<b>Total</b>	<b>180</b>	<b>150</b>	
<b>OJT: 60 Hours</b>				

**SECTION 1**  
**ASSESSMENT**

21	<p><b>Body/Bodies which will carry out assessment:</b></p> <p>ASCI affiliated assessment bodies.</p> <ol style="list-style-type: none"><li>1. SHL India (Pvt.) Ltd</li><li>2. Trendsetters Skill Assessors Pvt Ltd</li><li>3. Mercer-Mettl</li><li>4. SP Institute of Workforce Development (SPIWD)</li><li>5. MSAG SI LLP</li></ol> <p>More Assessment Agencies are being empanelled to cover wider geographical area</p>
22	<p><b>How will RPL assessment be managed and who will carry it out?</b></p> <p>RPL will be based on the same approved Qualification Pack and Assessment Criteria mentioned in the Qualification Pack and will be carried out as per normal ASCI assessment process. The Training Partner or any other authority as prescribed by the Steering Committee will identify and counsel candidates eligible for RPL through mobilization camps and advertisements. The mobilized candidates can be counselled, oriented about the standardized NSQF framework and basis their existing competency will be mapped against the suitable level of the concerned Job role for assessments. The candidates enrolled will be assessed by the Assessment Agency affiliated with the Sector Skill Council on the basis of assessment criteria decided by Sector Skill Council (SSC). The candidate will need to pass in the minimum assessment criteria of a particular QP decided by the SSC. Successfully assessed candidates with a valid Aadhaar or alternate ID (as per process) will be eligible for QP-NOS based Certification.</p>
23	<p><b>Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, reliable and fair and show that these are in line with the requirements of the NSQF.</b></p> <p>A robust technology enabled assessment methodology has been designed keeping in mind the geographical/Physical constraints and target segment which assess a trainee's knowledge and skill set through three methods:</p> <ol style="list-style-type: none"><li>a. An offline Tablet based test through the use of Multiple Choice Text and Picture based questions in vernacular languages</li><li>b. Actual demonstration on the field</li><li>c. Viva</li></ol> <p><b>ASCI's assessment strategy:</b></p> <ul style="list-style-type: none"><li>• Question sets are developed as per the weightage of each NOS of the Qualification Pack.</li><li>• Assessment criteria for each Qualification Pack developed, in which</li></ul>

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	<p>each Performance criteria (PC) assigned marks based on NOS</p> <ul style="list-style-type: none"><li>• Question Bank is developed to assess the theoretical and practical knowledge. To ensure the quality, each trainees get different set of question</li><li>• Empanelment of subject matter expert as assessor primarily from the Industry to assess trainee specifically on practical skills as per Industry demands</li></ul> <p>Assessments are preferably conducted on tablets or pen or papers in regional languages according to the requirement.</p>
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Please attach most relevant and recent documents giving further information about assessment and/or RPL.

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

### ASSESSMENT EVIDENCE

**Complete a grid for each component as listed in “Formal structure of the qualification” in the Summary.**

*NOTE: this grid can be replaced by any part of the qualification documentation which shows the same information – i.e. Learning Outcomes to be assessed, assessment criteria and the means of assessment.*

#### 24. Assessment evidences

**Title of Component:**

Outcomes to be assessed/ NOSs to be assessed	Assessment criteria for the outcome

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<b>Means of assessment 1</b>
<b>Pass/Fail</b>

NSQC Approved

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**Job Role:** Para Geohydrologist

**Qualification Pack:** AGR/Q6602, v2.0

**Sector Skill Council:** Agriculture Skill Council of India

### **Assessment Guidelines:**

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (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. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criterion.
6. To pass the Qualification Pack, every trainee should score a minimum of 70% of aggregate marks to successfully clear the assessment.

In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>AGR/N6618: Carry out landscape survey and assist in preparing the Detailed Project Report (DPR)</b>				
<i>Carry out landscape survey</i>	<b>12</b>	<b>15</b>	-	<b>11</b>
PC1. analyze the toposheet map and topography determined through contour lines	-	-	-	-
PC2. demarcate the watershed/ springshed (based on the orientation of geological planes)/ aquifer boundary (based on well data) on the toposheet	-	-	-	-
PC3. calculate the watershed /springshed area on the toposheet	-	-	-	-
PC4. carry out delineation of watersheds and springshed and mapping of water resources in terms of quantity and quality	-	-	-	-
PC5. collect periodic well data to determine water table and aquifer characteristics	-	-	-	-



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PC6. collect spring discharge data on a periodic basis	-	-	-	-
<i>Analyze the geohydrology</i>	<b>10</b>	<b>14</b>	<b>-</b>	<b>12</b>
PC7. analyze the thematic maps, such as geology, geomorphology, lineament maps, etc.	-	-	-	-
PC8. analyze the aquifer and determine the groundwater levels	-	-	-	-
PC9. identify the runoff, recharge and discharge zones in the watershed	-	-	-	-
PC10. evaluate various parameters in the field to identify the relevant zones, such as rock type, soil type, water level, slope, land use, etc.	-	-	-	-
PC11. prepare the hydrogeology matrix	-	-	-	-
PC12. undertake a field survey and identify the relevant zones in the watershed area	-	-	-	-
PC13. assist in setting up a monitoring network for water resources, Natural Resource Management (NRM), etc.	-	-	-	-
PC14. prepare the relevant geohydrology reports for the watershed/ springshed/ landscape	-	-	-	-
<i>Prepare the DPR</i>	<b>8</b>	<b>11</b>	<b>-</b>	<b>7</b>
PC15. determine the requirement of collecting the primary and secondary data, and collect the relevant data from reliable sources	-	-	-	-
PC16. use an appropriate format for the preparation of DPR	-	-	-	-
PC17. use the relevant types of maps while preparing the DPR	-	-	-	-
PC18. analyze the collected data and to evaluate the strategy and goal of watershed intervention	-	-	-	-
PC19. carry out the PRA exercise and prepare the watershed/springshed plan	-	-	-	-
PC20. map the water resources in the village/GP in terms of quantity and quality	-	-	-	-
PC21. assist in hydrological/ hydrogeological mapping	-	-	-	-
PC22. identify the suitable intervention and develop the DPR	-	-	-	-
PC23. carry out field visits to the site and assess the technical and social feasibility of the plan	-	-	-	-

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PC24. prepare the tentative budget	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>40</b>	<b>-</b>	<b>30</b>
<b>AGR/N6605: Assist in carrying out water budgeting for the watershed/springshed</b>				
<i>Assist in carrying out watershed/springshed water budgeting</i>	<b>14</b>	<b>22</b>	-	<b>13</b>
PC1. assist in determining the format for data collection for water budgeting	-	-	-	-
PC2. conduct field visits to collect different types of field data	-	-	-	-
PC3. assist in compiling and organizing the data for analysis	-	-	-	-
<i>Present the water budget to the community/VLI</i>	<b>16</b>	<b>18</b>	-	<b>17</b>
PC4. prepare a poster on water budgeting	-	-	-	-
PC5.coordinate with the village community and VLI to analyze the water budgeting results and prepare a plan	-	-	-	-
PC6.assist in the preparation of water balance, water budget and water security planning with the community	-	-	-	-
PC7.ensure achievement of sustainable water management with a hydrogeological understanding of the target area	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>40</b>	<b>-</b>	<b>30</b>
<b>AGR/N6650: Plan, implement and monitor watershed, springshed and groundwater projects</b>				
<i>Plan, implement and monitor watershed projects</i>	<b>10</b>	<b>16</b>		<b>10</b>
PC1. mobilize the land owners to participate in planning the use of resources and soil conservation treatments	-	-	-	-
PC2. undertake net planning for area treatment, drainage line treatment and WHS viz. field mapping, existing treatment, proposed treatment, cross-section, volume, re-vegetation measures etc.	-	-	-	-
PC3. focus on gender sensitization and mainstreaming activities requirement	-	-	-	-
PC4. identify the opportunities for women's economic development activities in the region and suggest the appropriate interventions	-	-	-	-
PC5. evaluate the agriculture, livestock and other agri-allied activities in the regions	-	-	-	-

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PC6. undertake the Training Need Assessment (TNA) to identify the training need of the watershed community institutions	-	-	-	-
PC7. organize, train and build the capacity of watershed community institutions	-	-	-	-
PC8. estimate the costs for the implementation and management of watershed projects, e.g. area treatment, drainage land treatment, supervision, livelihood intervention, training and capacity building, development of landless and marginalized community members, program management etc.	-	-	-	-
PC9. implement the project components through user groups and watershed project management committees	-	-	-	-
PC10. maintain the record of baseline and change the pattern of the watershed	-	-	-	-
PC11. record the data concerning the intervention activities for the watershed for monitoring and auditing purposes	-	-	-	-
PC12. assist the watershed committees, SHGs and UGs in monitoring compliance with the applicable disciplines/norms and ensuring appropriate action against the violators	-	-	-	-
<i>Plan, implement and monitor springshed projects</i>	<b>10</b>	<b>12</b>		<b>10</b>
PC13. determine the needs and the willingness of the community	-	-	-	-
PC14. identify and prioritize the critical springs for revival and short and long-term monitoring based on the needs of communities	-	-	-	-
PC15. undertake social and technical feasibility surveys to assess the possibility of undertaking the initiative and prepare the Detailed Work Plans (DWPs)	-	-	-	-
PC16. conduct village meetings and PRA with the community, including women, elders and socio- economically marginalized communities	-	-	-	-
PC17. carry out seasonal water budgeting of spring water for different uses	-	-	-	-
PC18. prepare the Village Water Security Plans (VWSPs) using participatory water budget assessments	-	-	-	-
PC19. carry out discharge and quality monitoring manually or by automated instruments	-	-	-	-

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PC20. carry out periodic documentation concerning spring discharge and water quality to improve the community's understanding of their resources and help improve management practices	-	-	-	-
PC21. identify the potential recharge areas and propose appropriate measures for optimal recharge and reduced soil erosion	-	-	-	-
PC22. undertake appropriate recharge interventions	-	-	-	-
PC23. revive and conserve springs, and provide water security by adopting scientific methods on springshed management	-	-	-	-
PC24. adopt comprehensive scientific methods viz. hydrogeology and quality assessment of water in implementing relevant regional programs for the benefit of people	-	-	-	-
<i>Plan, implement and monitor groundwater projects</i>	<b>10</b>	<b>12</b>	-	<b>10</b>
PC25. use the relevant maps for planning	-	-	-	-
PC26. assist in the preparation of the Water Security Plan (WSP) through community consultations, focus group discussions, demystifying the process for the community	-	-	-	-
PC27. develop and follow the protocols for water resources management in consultation with the community institutions	-	-	-	-
PC28. perform crop water budgeting concerning demand and supply	-	-	-	-
PC29. develop appropriate treatment interventions in the catchment and command areas, and their financial budgeting	-	-	-	-
PC30. conduct the annual audit and maintain the relevant data related to groundwater accounting	-	-	-	-
PC31. undertake interventions for water harvesting or storage, e.g. rooftop rainwater harvesting, weirs, stop dams, cement check dams, minor irrigation tanks, etc.	-	-	-	-
PC32. undertake appropriate interventions for water supply, e.g. canals, lift irrigation schemes, community lifts schemes, drinking water supply systems, etc.	-	-	-	-
PC33. implement the best practices for water conservation, such as micro-irrigation systems, mulching, application of Farm Yard Manure	-	-	-	-

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(FYM) or organic matter, grey water reuse, cultivation of crop varieties with low water requirement, etc.				
PC34. undertake community-contributed operations and asset maintenance activities, e.g. repairs, de-siltation, restoration etc.	-	-	-	-
PC35. incorporate the water security plan at the regional level	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>40</b>	<b>-</b>	<b>30</b>
<b>AGR/N6613: Carry out data management for the watershed, springshed and groundwater interventions</b>				
<i>Maintain the data concerning watershed/ springshed/ groundwater interventions</i>	<b>14</b>	<b>22</b>	<b>-</b>	<b>16</b>
PC1. maintain the technical maps, well-monitoring, and WHS data	-	-	-	-
PC2. maintain the record of interventions undertaken	-	-	-	-
PC3. collect and maintain the telemetric data, using sensors and appropriate instruments	-	-	-	-
<i>Ensure effective water management</i>	<b>16</b>	<b>18</b>	<b>-</b>	<b>14</b>
PC4. determine the existing water availability and the potential to increase water availability through the supply	-	-	-	-
PC5. perform demand management through the cultivation of low water demanding crop varieties and using the micro-irrigation systems	-	-	-	-
PC6. undertake crop water budgeting exercise	-	-	-	-
PC7. determine the water productivity and water use efficiency	-	-	-	-
PC8. collect and verify data regularly and support data analysis	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>40</b>	<b>-</b>	<b>30</b>
<b>AGR/N6604: Guide and support the community in soil and water conservation</b>				
<i>Guide in site selection</i>	<b>4</b>	<b>8</b>	<b>-</b>	<b>4</b>
PC1. guide in the selection of appropriate sites for soil and water conservation and the construction of WHS based on geohydrology study and DPR	-	-	-	-
PC2. provide technical guidance for undertaking the necessary interventions	-	-	-	-
PC3. maintain the records of the interventions	-	-	-	-

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PC4. assist in reconciling the technical aspects, e.g. site selection, the technical feasibility of the site, etc.	-	-	-	-
<i>Supervise the construction of water harvesting structure</i>	<b>5</b>	<b>7</b>	-	<b>5</b>
PC5. mark the layout accurately	-	-	-	-
PC6. perform effective work site management, including the allotment of work to wage seekers	-	-	-	-
PC7. ensure adherence to the technical specifications concerning Plain Cement Concrete (PCC), Reinforced Cement Concrete (RCC), stone masonry, plaster etc., by guiding the field team	-	-	-	-
<i>Control the velocity of run-off to prevent soil erosion</i>	<b>13</b>	<b>16</b>	-	<b>13</b>
PC8. construct field bunds to reduce the field size and control the rate of overland flow	-	-	-	-
PC9. carry out levelling or terracing to reduce the slope of the land	-	-	-	-
PC10. constructing contour ditches and diversion channels to remove the excess surface run-off in a controlled manner	-	-	-	-
PC11. apply organic matters to improve the soil structure and increase the infiltration of rainwater	-	-	-	-
PC12. follow the recommended measures, such as growing cover crops/grass to reduce the physical impact of precipitation on the soil surface	-	-	-	-
PC13. carry out conservation tillage to bind the soil surface and reduce the detachment of soil particles	-	-	-	-
PC14. carry out mulching to reduce the soil surface temperature	-	-	-	-
PC15. construct contour hedges and outlets with silt traps to trap the eroded sediments	-	-	-	-
<i>Maintain the records of interventions</i>	<b>8</b>	<b>9</b>	-	<b>8</b>
PC16. maintain various field-level records, such as the attendance sheet, stock register, measurement register, etc.	-	-	-	-
PC17. measure the work specification regarding the work carried out in the field	-	-	-	-
PC18. prepare the payment data based on the work carried out	-	-	-	-

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PC19. monitor the implementation, operations, maintenance and post-implementation activities	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>40</b>	<b>-</b>	<b>30</b>
<b>AGR/N6621: Assist the village community in capacity-building</b>				
<i>Assist in capacity-building</i>	<b>16</b>	<b>22</b>	<b>-</b>	<b>16</b>
PC1. assist the community in building skills concerning the identification of recharge or surface storage zones	-	-	-	-
PC2. guide the community regarding appropriate site selection for water harvesting based on hydrogeology	-	-	-	-
PC3. conduct field surveys for slope measurement, demarcation of contour lines using A-Frame, L-section and C-section surveys, etc.	-	-	-	-
PC4. assist the community in developing and implementing protocols	-	-	-	-
PC5. demonstrate the use of relevant tools, web/mobile applications and sensors	-	-	-	-
<i>Manage logistics for training and workshops</i>	<b>14</b>	<b>18</b>		<b>14</b>
PC6. select an appropriate venue and time for training and workshops to ensure maximum participation	-	-	-	-
PC7. ensure the availability of an appropriate facility with the required seating capacity and health and safety arrangements	-	-	-	-
PC8. arrange the appropriate tools, equipment and aids for training and workshops, e.g. audio-visual aids, stationery, relevant literature, refreshments, etc.	-	-	-	-
PC9. coordinate with the relevant authorities to get necessary approvals for training and workshops	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>40</b>	<b>-</b>	<b>30</b>
<b>AGR/N9903: Maintain health and safety at the workplace</b>				
<i>Maintain personal hygiene</i>	<b>10</b>	<b>5</b>	<b>-</b>	<b>10</b>
PC1. wash hands, legs and face with soap/alcohol-based sanitiser at reasonable intervals	-	-	-	-
PC2. wash the worn clothes with soap and sun-dry before use next time	-	-	-	-
PC3. ensure the face is covered with a mask or three layers of cloth-piece	-	-	-	-



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PC4. follow the workplace sanitization norms including distancing from sick people	-	-	-	-
<i>Maintain a clean and safe workplace</i>	<b>15</b>	<b>15</b>	-	<b>15</b>
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 the required action to reduce the risks	-	-	-	-
PC13. work in a manner that minimises 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	-	-	-	-
PC15. follow government / workplace advisories in case of outbreak of any disease/disaster	-	-	-	-
<i>Administer appropriate emergency procedures</i>	<b>15</b>	<b>5</b>	-	<b>10</b>
PC16. follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions to the location of the emergency, as per the workplace requirements	-	-	-	-
PC17. use emergency equipment in accordance with the manufacturer's specifications and workplace requirements	-	-	-	-



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PC18. report provided 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	-	-	-	-
<b>NOS Total</b>	<b>40</b>	<b>25</b>	<b>-</b>	<b>35</b>
<b>Employability Skills – NOS (60 hours)</b>				
<i>Introduction to Employability Skills</i>	<b>1</b>	<b>1</b>	-	-
PC1. Identify employability skills required for jobs in various industries	-	-	-	-
PC2. identify and explore learning and employability portals.	-	-	-	-
<i>Constitutional values – Citizenship</i>	<b>1</b>	<b>1</b>	-	-
PC3. 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.	-	-	-	-
PC4. follow environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	<b>2</b>	<b>4</b>	-	-
PC5. recognize the significance of 21st Century Skills for employment	-	-	-	-
PC6. practice the 21st Century Skills such as Self-Awareness, Behavior 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	-	-	-	-
<i>Basic English Skills</i>	<b>2</b>	<b>3</b>	-	-
PC7. use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-
PC8. read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
PC9. write short messages, notes, letters, e-mails etc. in English	-	-	-	-
<i>Career Development &amp; Goal Setting</i>	<b>1</b>	<b>2</b>	-	-

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PC10. understand the difference between job and career	-	-	-	-
PC11. prepare a career development plan with short- and long-term goals, based on aptitude	-	-	-	-
<i>Communication Skills</i>	<b>2</b>	<b>2</b>	-	-
PC12. follow verbal and non-verbal communication etiquette and active listening techniques in various settings	-	-	-	-
PC13. work collaboratively with others in a team	-	-	-	-
<i>Diversity &amp; Inclusion</i>	<b>1</b>	<b>2</b>	-	-
PC14. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC15. 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>	-	-
PC16. select financial institutions, products and services as per requirement	-	-	-	-
PC17. carry out offline and online financial transactions, safely and securely.	-	-	-	-
PC18. identify common components of salary and compute income, expenses, taxes, investments etc.	-	-	-	-
PC19. identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
<i>Essential Digital Skills</i>	<b>3</b>	<b>4</b>	-	-
PC20. operate digital devices and carry out basic internet operations securely and safely	-	-	-	-
PC21. use e- mail and social media platforms and virtual collaboration tools to work effectively	-	-	-	-
PC22. use basic features of word processor, spreadsheets, and presentations	-	-	-	-
<i>Entrepreneurship</i>	<b>2</b>	<b>3</b>	-	-
PC23. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
PC24. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion.	-	-	-	-

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PC25. 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>	-	-
PC26. identify different types of customers	-	-	-	-
PC27. identify and respond to customer requests and needs in a professional manner.	-	-	-	-
PC28. follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship &amp; Jobs</i>	<b>2</b>	<b>3</b>	-	-
PC29. create a professional Curriculum vitae (Résumé)	-	-	-	-
PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
PC31. apply to identified job openings using offline /online methods as per requirement	-	-	-	-
PC32. answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
<b>NOS Total</b>	<b>20</b>	<b>30</b>	-	-

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### SECTION 2

#### EVIDENCE OF LEVEL

#### OPTION B

Title/ Name of qualification/ component: Para Geohydrologist			Level: 4
NSQF Domain	NSQF Domain	NSQF Domain	NSQF Domain
Process	<ul style="list-style-type: none"><li>• Process of carrying out landscape survey and assist in preparing the Detailed Project Report (DPR)</li><li>• Process of assisting in carrying out water budgeting of the watershed/springshed</li><li>• Process of carrying out data management for watershed, springshed and groundwater interventions</li><li>• Process of identifying the appropriate site for soil and water conservation and construction of WHS</li><li>• Process of assisting the village community in capacity-building.</li><li>• Process of following the appropriate finance management and digital practices</li><li>• Process of using resources optimally and perform waste and logistics management</li><li>• Process of following inclusive practices at work</li><li>• Process of maintaining health and safety at the workplace</li></ul>	A Para Geohydrologist is responsible for carrying out the landscape survey, preparing the Detailed Project Report (DPR), water budgeting for watershed/springshed, and data management for the watershed, springshed and groundwater interventions.	4

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Professional knowledge	<ul style="list-style-type: none"><li>• Understand the significance of geohydrology in water resource planning and development</li><li>• Know how to analyze the geohydrology.</li><li>• Understand the importance and process of preparing a DPR.</li><li>• Understand the process of hydrological/hydrogeological mapping.</li><li>• Know how to carry out watershed/springshed water budgeting.</li><li>• Understand the basics of hydraulics such as pressure, flow and hydrological cycle.</li><li>• Know different types of piping networks, PVC fittings, pumps and their application</li><li>• Knowledge and Understanding of effective data management practices.</li><li>• Understand the importance and process of determining the existing water availability and the potential to increase water availability</li></ul>	The job holder is expected to have knowledge of geohydrology in water resource planning and development and carrying out the landscape survey, preparing the Detailed Project Report (DPR), water budgeting for watershed/springshed, and data management for the watershed, springshed and groundwater interventions	4
Professional skill	<ul style="list-style-type: none"><li>• Analyze the toposheet map and topography determined through contour lines</li><li>• Analyze the thematic maps, such as geology, geomorphology, lineament maps, etc.</li><li>• Analyze the aquifer and determine the groundwater levels</li><li>• Use the relevant types of maps while preparing the DPR</li><li>• Assist in compiling and organizing the data for analysis</li><li>• Assist in the preparation of water balance,</li></ul>	The job holder is expected to analyze the posheet map and topography determined through contour lines and also in identifying the appropriate site for soil and water conservation and construction of Water Harvesting Structures (WHS) and assisting the village community in capacity-building	

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	<ul style="list-style-type: none"><li>water budget and water security planning with the community</li><li>• Maintain the technical maps, well-monitoring, and WHS data</li><li>• Maintain the record of interventions undertaken</li><li>• Collect and maintain the telemetric data, using sensors and appropriate instruments</li></ul>		
Core Skills	<ul style="list-style-type: none"><li>• Carrying out the landscape survey, analysing the geohydrology and assisting in preparing the Detailed Project Report (DPR).</li><li>• Preparing the water budget based on the availability and utilization of water in the watershed/springshed.</li><li>• Maintaining data appropriate concerning the watershed/ springshed/ groundwater interventions.</li><li>• Surveying the sites, guiding in identifying the appropriate sites for soil and water conservation structures and the construction of Water Harvesting Structures (WHS).</li><li>• Assisting the village community in capacity-building concerning effective water usage and management of water resources.</li><li>• Following the appropriate financial management and digital practices.</li></ul>	The job holder is expected to carrying out the landscape survey, analysing the geohydrology and assisting in preparing the Detailed Project Report (DPR), preparing the water budget based on the availability and utilization of water in the watershed/springshed also maintaining data appropriate concerning the watershed/ springshed/ groundwater interventions and surveying the sites, guiding in identifying the appropriate sites for soil and water conservation structures and the construction of Water Harvesting Structures (WHS).	4

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Responsibility	<ul style="list-style-type: none"><li>• Responsible for carrying out landscape survey</li><li>• Responsible for analysing the geohydrology</li><li>• Responsible for assisting in preparing the DPR</li><li>• Responsible for assisting in carrying out watershed/ springshed water budgeting</li><li>• Responsible for presenting the water budget to the community/VLI</li><li>• Responsible for maintaining the data concerning watershed/ springshed/ groundwater interventions</li><li>• Responsible for ensuring effective water management</li><li>• Responsible for guiding in site selection</li><li>• Responsible for supervising the construction of WHS</li><li>• Responsible for maintaining the records of interventions</li><li>• Responsible for assisting in capacity-building</li></ul>	<p>A Para Geohydrologist is responsible for carrying out the landscape survey, preparing the Detailed Project Report (DPR), water budgeting for watershed/springshed, and data management for the watershed, springshed and groundwater interventions. The individual is also responsible for guiding in identifying the appropriate site for soil and water conservation and construction of Water Harvesting Structures (WHS) and assisting the village community in capacity-building.</p>	4
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**SECTION 3****EVIDENCE OF NEED**

<b>26</b>	<b>What evidence is there that the qualification is needed? What is the estimated uptake of this qualification and what is the basis of this estimate?</b>
<b>Basis</b>	
Need of the qualification	<p>While collecting data from the companies for the occupational map, we also took feedback from industry, training institutions which was collected with respect to roles for which qualification packs development, was to be prioritized. This was largely based on volume of people required, quantitative and qualitative shortfall which the industry feels they face. Governing council of ASCI and Occupational Standards Committee which comprises of experts &amp; senior leaders gave final approval and endorsement for the same.</p> <p>The Department of Land Resources, Ministry of Rural Development is implementing the Integrated Watershed Development Programme (IWMP) from 2009-10 with an objective to cover 55 million hectare of rain fed land by 2027. The program is being implemented in all the states of the country. The programme is financed by central and state government in the ratio of 90:10. The IWMP is the second largest watershed programme in the world after China. Watershed management helps to control pollution of the water and other natural resources in the watershed. Haryali is a watershed development project sponsored by the Central Government which aims at enabling the rural population to conserve water for drinking, irrigation, fisheries and afforestation. The Project is being executed by Gram Panchayats with people's participation.</p> <p>Employment opportunities for the community members are increased with better wage earnings in construction work during pre-watershed and engagement in the agricultural field during post watershed programmes.</p> <p>The overall attributes of the watershed development approach, by and large, are three-fold, viz. promoting economic development of the rural area, employment generation, and restoring ecological balance.</p> <p>Agriculture is the largest sector for employment in India.</p>
Industry Relevance	Foundation for Ecological Security, Arghyam, Water for People India, Meghalaya Basin Management Agency, Directorate of Soil Conservation & Watershed Development, Department of Agriculture & Farmers' Empowerment, Government of Odisha, Prof (Dr) Uday Shankar Saha (Watershed Expert)



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Usage of the qualification	<p>An NSQF aligned training to the persons involved in grooming of <b>Para Geohydrologist</b> shall provide opportunities to the incumbents for horizontal and vertical career progression. Competency-based training shall imbibe professionalism in the job-role. Being an important and ever-expanding job, the job-role of Para Geohydrologist may well be included in the vocational education stream of school education.</p> <p>An industry-determined specification of performance, sets out the skills, knowledge and attitudes required to operate effectively in employment.</p> <p>For employers, the <b>Para Geohydrologist</b> Qualification standards offer:</p> <ul style="list-style-type: none"><li>• a means of assessing occupational competence objectively, including knowledge and understanding of the subject</li><li>• a guide for job descriptions and recruitment requirements</li><li>• a basis for staff appraisals</li><li>• a systematic approach to analyzing training needs</li><li>• an opportunity to improve overall company performance by developing a better-trained, better-equipped and more effective workforce.</li></ul> <p>To employees and freelancers, the <b>Para Geohydrologist</b> Qualification standards provide:</p> <ul style="list-style-type: none"><li>• a means for recognizing ability</li><li>• a means for determining gaps in knowledge, experience and skills</li><li>• an objective process for identifying training needs</li><li>• performance indicators and a guide to effectiveness and efficiency.</li></ul> <p>One of the most valuable uses of the occupational standards is in the assessment of a person's performance within a particular job. Because the standards are based on the industry's requirements for ability, skills and knowledge, they provide an objective and directly relevant measure for employers and employees alike.</p>			
	The Qualification Pack shall also be helpful in conducting Recognition of Prior Learning of the Para Geohydrologist			
Estimated uptake	QP/Job Role Name	"States where Demand exist	"District where Demand exist	Projections for the next 3 years
	Para Geohydrologist	PAN INDIA	Various Districts	3000

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27	<b>Recommendation from the concerned Line Ministry of the Government/Regulatory Body. To be supported by documentary evidences</b> In Process
28	<b>What steps were taken to ensure that the qualification(s) does (do) not duplicate already existing or planned qualifications in the NSQF? Give justification for presenting a duplicate qualification</b> This is the revised version of the already NSQC approved QP of Service Technician-Watershed (NQR - AGR/Q6602). The revision has been undertaken as the QP is going to expire soon.
29	<b>What arrangements are in place to monitor and review the qualification(s)? What data will be used and at what point will the qualification(s) be revised or updated? Specify the review process here</b> Any institution or individual is welcome to send the feedback, which is recorded and considered during next review cycle. Communication will be sent for any feedback to all the main stakeholders/users one month prior to the review of the qualifications pack. A formal review is scheduled in three years.

Please attach most relevant and recent documents giving further information about any of the topics above.

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information

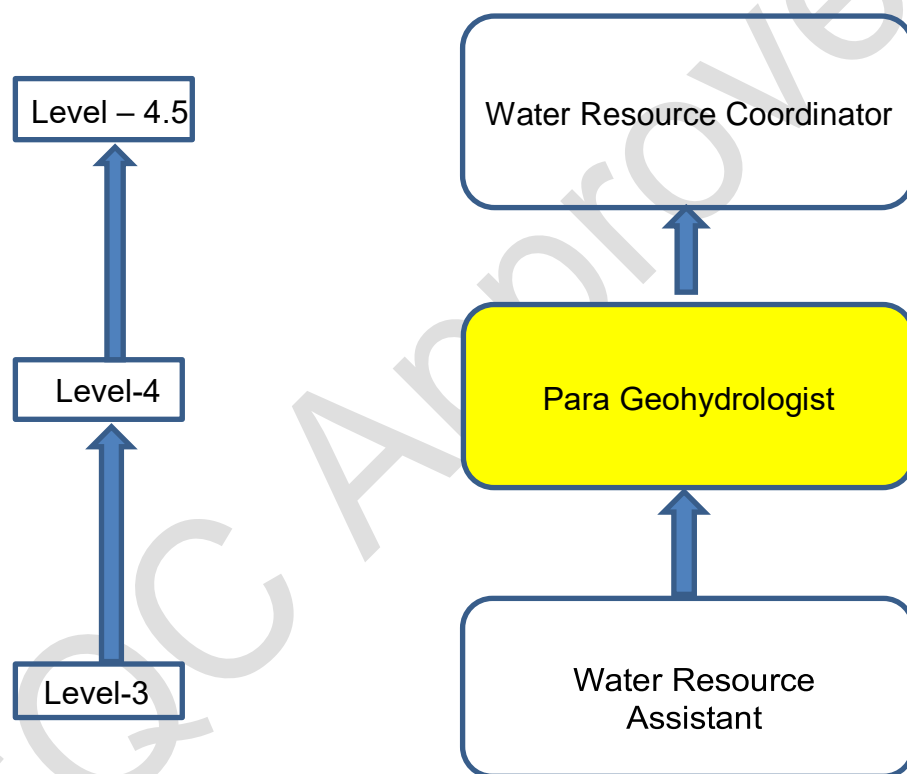
**SECTION 4****EVIDENCE OF PROGRESSION****30**

**What steps have been taken in the design of this or other qualifications to ensure that there is a clear path to other qualifications in this sector?**

***Show the career map here to reflect the clear progression***

Career path in the agriculture sector is generally in terms of activities done & ownership of responsibility because they are primarily self-wage employment/ entrepreneurship roles.

**Annexure 1: Career Map of Para Geohydrologist**



Please attach most relevant and recent documents giving further information about any of the topics above.

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.