

NSQF QUALIFICATION FILE

Approved in 24th NSQC Meeting-NCVET-Dated 17th Nov,2022

CONTACT DETAILS OF THE BODY SUBMITTING THE QUALIFICATION FILE

Name and address of submitting body:

Skill Council for Green Jobs,
CIBP Building, Malcha Marg,
Chankyapuri, New Delhi - 110021

NCVET Code

2022/ES/SCGJ/06464

Name and contact details of individual dealing with the submission

Name: Dr. Praveen Saxena
Position in the organisation: Chief Executive Officer
Address if different from above: (Same as above)
Tel number(s): 9871119101
E-mail address: ceogreenjobs@gmail.com

List of documents submitted in support of the Qualification File

1. Model Curriculum
2. Occupational Map

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SUMMARY

1	Qualification Title:	Rooftop Rainwater Harvesting Entrepreneur
2	Qualification Code, if any: -	SGJ/Q4101
3	NCO code and occupation: -	NCO-2015/Nil
4	Nature and purpose of the qualification (Please specify whether qualification is short term or long term):	<p>Nature: This Qualification contains Occupation Standards for creating Successful Entrepreneurs in Rainwater harvesting business space (rooftop). The trainee will be trained on all key aspects of the concerned business including on technical, business development, financial, regulatory etc to ensure certified trainees are market ready to start and run an enterprise in this business space.</p> <p>Purpose of the qualification: To facilitate in accelerating self-employment/entrepreneurial opportunities in rooftop rainwater harvesting system installation business space.</p>
5	Body/bodies which will award the qualification:	Skill Council for Green Jobs
3	Body which will accredit providers to offer courses leading to the qualification:	Skill Council for Green Jobs
7	Whether accreditation/affiliation norms are already in place or not, if applicable (if yes, attach a copy)	Yes
8	Occupation(s) to which the qualification gives access:	Entrepreneur
9	Job description of the occupation:	Rooftop Rainwater Harvesting Entrepreneur shall analyse key parameters for rain water harvesting system, estimate cost parameters and oversee its installation and maintenance

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10	Licensing requirements:	NA
11	Statutory and Regulatory requirement of the relevant sector (documentary evidence to be provided):	-
12	Level of the qualification in the NSQF:	Level 4
13	Anticipated volume of training/learning required to complete the qualification:	420 hours
14	Indicative list of training tools required to deliver this qualification:	Training kit (Trainer guide, Presentations), White board, Marker, Projector screen, Power Point Presentation Laptop with charger, Related Standard Operating Procedures, PVC Internal Sanitary Tee & Pipe with smoothing inlet & Flexible Coupling, Overflow pipe, Riser Pipe, access opening, Riser with Lid, Pump Platform, Lifting Lugs, Prefabricated concrete deadman, Hold down straps, Ladder, tank sizing chart, measurement conversion chart, Required Building Layout Plans, Area Layout Plans, Sewage layout maps etc., First-aid kit, Basic tools and equipment.
15	Entry requirements and/or recommendations and minimum age:	<p>Entry requirements:</p> <p>10th Class Pass + NTC (1 year after Class 10th), with 1 year of relevant experience</p> <p>OR</p> <p>10th Class Pass + NTC (2 years after Class 10th)</p> <p>OR</p> <p>10th Class Pass plus 3 Years Diploma</p> <p>OR</p> <p>12th Class Pass, plus 6 months of relevant experience</p> <p>OR</p>

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	<p>Certified on Rainwater Harvesting Technician NSQF Level 3, with 2 years of relevant experience</p> <p>Minimum age: 16 years</p>		
16	<p>Progression from the qualification:</p>	<p>Vertical Progression: NA</p> <p>Horizontal Progression: Rainwater Harvesting System Designer (Level 4)</p>	
17	<p>Arrangements for the Recognition of Prior learning (RPL):</p>	<p>SCGJ recognizes that there may be candidates who have prior learning experience in the water management sector and are desirous of being certified.</p> <ul style="list-style-type: none"> •Propose to carry out RPL for candidates working with non-government organization or industries working in water management •Identify the candidates through training need analysis of the water management sector •Develop the RPL Training Delivery Plan and bridge course for bridging the skill gap •Training and certification of the candidates 	
18	<p>International comparability where known (research evidence to be provided):</p>	NA	
19	<p>Date of planned review of the qualification:</p>	16 th November 2025	
20	<p>Formal structure of the qualification</p> <p>Mandatory/Optional components</p>		
	<p>Title of component and identification code/NOSs/Learning outcomes</p>	<p>Estimated size (learning hours)</p>	<p>Level</p>
(I)	<p>SGJ/N1821: Site survey and design parameters for installation of Rain water Harvesting system:</p> <p>Module 1: Introduce Rain Water</p>	90:00	4

NSQF QUALIFICATION FILE

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	<p>Harvesting (RWH)</p> <p>Module 2: Identify elements of Rooftop Rain water harvesting</p> <p>Module 3: Survey site and discuss key prerequisites for rainwater harvesting system installation as per concerned guidelines</p> <p>Module 4: Select design and installation of RWH system as per concerned site conditions and regulations</p>		
(II)	<p>SGJ/N1822: Assess project cost for Rainwater Harvesting system installation and maintenance:</p> <p>Module 5: Assess lifecycle cost for installing rain water harvesting system as per different site conditions</p>	60:00	4
(III)	<p>SGJ/N1823: Oversee the installation and maintenance of Rainwater Harvesting system:</p> <p>Module 6: Oversee the Installation of Rain Water Harvesting System</p> <p>Module 7: Perform Maintenance and monitoring of Rain Water Harvesting System</p> <p>Module 8: Analyse successful case studies showcasing best practices in installing and maintaining rain water harvesting system</p> <p>Module 9: Enable Environment for implementing Rainwater Harvesting system</p>	90:00	4
(IV)	<p>SGJ/N6103: Maintain Health and safety at workplace</p> <p>Module 10: Maintain Personal Health and Safety</p>	30:00	3
(V)	<p>DGT/VSQ/N0102: Employability Skills (60 hours)</p> <p>Module 11: Employability Skill</p>	60:00	4
(VI)	On the Job Training	90:00	

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	Total	420:00	
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SECTION 1
ASSESSMENT

21	<p>Body/Bodies which will carry out assessment: Skill Council for Green Jobs through its affiliated/accredited Assessment Agencies.</p>
22	<p>How will RPL assessment be managed and who will carry it out? The RPL assessment will be carried out through pre-assessment, identifying the skills gaps, provide bridge training to cover the competency gap, where required, and then conduct final assessment of the candidates.</p> <p>Final assessment will be carried out by SCGJ affiliated/accredited Assessment Agencies of SCGJ, as per RPL Policy and Guidelines</p>
23	<p>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.</p> <ol style="list-style-type: none"> 1. Assessment System Overview: <ul style="list-style-type: none"> • Batches assigned to the assessment agencies for conducting the assessment on SDSM/SIP or email • Assessment agencies send the assessment confirmation to VTP/TC looping SSC • Assessment agency deploys the ToA certified Assessor for executing the assessment • SSC monitors the assessment process & records • If the batch size is more than 30, then there should be 2 Assessors. 2. Testing Environment: Assessor must: <ul style="list-style-type: none"> • Confirm that the centre is available at the same address as mentioned on SDMS or SIP <ul style="list-style-type: none"> • Check the duration of the training. • Check the Assessment Start and End time to be as 10 a.m. and 5 p.m. • Check that the allotted time to the candidates to complete Theory & Practical Assessment is correct. • Check the mode of assessment—Online (TAB/Computer) or Offline (OMR/PP). • Confirm the number of TABs on the ground are correct to

	<p>execute the Assessment smoothly.</p> <ul style="list-style-type: none">• Check the availability of the Lab Equipment for the particular Job Role. <p>3. Assessment Quality Assurance levels / Framework:</p> <ul style="list-style-type: none">• Question papers created by the Subject Matter Experts (SME)• Question papers created by the SME should be verified by the other subject Matter Experts along with the approval required from SSC• Questions are mapped with NOS and PC• Question papers are prepared considering that level 1 to 3 is for the unskilled & semi-skilled individuals, and level 4 and above are for the skilled, supervisor & higher management• Assessor must be ToA certified• Assessment agency must follow the assessment guidelines to conduct the assessment <p>4. Types of evidence or evidence-gathering protocol:</p> <ul style="list-style-type: none">• Time-stamped & geotagged reporting of the assessor from assessment location• Centre photographs with signboards and scheme specific branding• Biometric or manual attendance sheet (stamped by TP) of the trainees during the training period• Time-stamped & geotagged assessment (Theory + Viva + Practical) photographs & videos <p>5. Method of verification or validation:</p> <ul style="list-style-type: none">• Surprise visit to the assessment location• Random audit of the batch• Random audit of any candidate <p>6. Method for assessment documentation, archiving, and access</p> <ul style="list-style-type: none">• Hard copies of the documents are stored• Soft copies of the documents & photographs of the assessment are uploaded / accessed from Cloud Storage and are stored in the Hard Drives
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24. Assessment evidences

CRITERIA FOR ASSESSMENT OF TRAINEES

Title of Component: Rooftop Rainwater Harvesting Entrepreneur

Qualification Pack: SGJ/Q4101

Sector Skill Council: Skill Council for Green Jobs

Guidelines for Assessment

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

Outcome Please refer to the QP-NOS for the Assessment criteria and outcome

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NSQF QUALIFICATION FILE
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SECTION 2

25. EVIDENCE OF LEVEL

OPTION A

Title/Name of qualification/component: Rooftop Rainwater Harvesting Installation Technician			
Level:3			
NSQF Domain	Key requirements of the job role	How the job role relates to the NSQF level descriptors	NSQF Level
Process	Rooftop Rainwater Harvesting Entrepreneur work in a familiar, predictable, routine, situation of clear choice, for instance He/she shall analyse key parameters for rain water harvesting system and oversee its installation and maintenance	A Rooftop Rainwater Harvesting Entrepreneur requires to perform routine and predictable work as he/she has to largely oversee the installation and maintenance of the RWH system, along with supporting various aspects of business creation and its sustainable operation.	4
Professional knowledge	This job holder should have factual and operational knowledge of the rain water harvesting sub domain (water management as a broader segment), including technical and business related aspects.	An entrepreneur in this sub domain must have knowledge of facts, principles, processes etc applicable to the business. He/she is expected to know the key elements of rooftop rain water harvesting system, their functions, cost, installation & maintenance procedure and other business related aspects, hence it is pegged at level 4.	4

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Title/Name of qualification/component: Rooftop Rainwater Harvesting Installation Technician			
Level:3			
NSQF Domain	Key requirements of the job role	How the job role relates to the NSQF level descriptors	NSQF Level
Professional skill	He/She is responsible for accomplishing tasks like creating an enterprise, subsequently get required business and oversee the installation and maintenance of rain water harvesting system across various consumers/building types.	This job holder shall be able to recall and demonstrate practical skills which may be routine and repetitive across RWH system installation and maintenance, using various market based approaches, hence it is pegged at level 4.	4
Core skill	The job holder needs to perform a range of technical calculations including for sizing the system components, their cost etc. At the same time	The job holder must have a command over the concerned language (English/hindi or vernacular) to communicate effectively in written or oral form with all stakeholders including customers. They should also have skills on basic arithmetic and algebraic principles to perform required system sizing or life cycle cost analysis related calculations. They should also have basic understanding of social political and natural environment to ensure business operations are suitably performed and so this is pegged at level 4.	4
Responsibility	Rooftop Rainwater Harvesting Entrepreneur is completely responsible for all work functions, including ensuring that the system is installed and maintained as per the required	The job holder has all the responsibility for his/her own work and learning to ensure that business performs well	4

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Title/Name of qualification/component: Rooftop Rainwater Harvesting Installation Technician			
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	regulations/guidelines.		

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SECTION 3

EVIDENCE OF NEED

26	<p>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?</p> <table border="1" data-bbox="352 510 1370 2049"> <thead> <tr> <th data-bbox="352 510 592 680">Basis</th> <th data-bbox="592 510 1370 680">In case of other Awarding Bodies (Institutes under Central Ministries and states departments)</th> </tr> </thead> <tbody> <tr> <td data-bbox="352 680 592 2049">Need of the qualification</td> <td data-bbox="592 680 1370 2049"> <p>Government of India along with various State Governments have been promoting the adoption of 'Rainwater harvesting' as a mass movement, as it is an important component for achieving the goals of 'Water Security' particularly in urban areas. Urban centers across the country are facing an ironical situation, as on one hand there is an acute shortage of water (including ground water) and on the other, often the streets are flooded during the rains, reflecting bad planning/inefficiency of the urban local bodies/other stakeholders with regards to (rain) water management. The shortage of ground water is more pronounced due to urbanization and limited open areas available for recharge of ground water.</p> <p>As reported by Press Information Bureau, 2022, 33 States/UTs have adopted the rainwater harvesting provisions. The implementation of the rainwater harvesting policy comes within the purview of the State Government/Urban Local Body / Urban Development Authority. As per Model Building Bye Laws- 2016, provision of rainwater harvesting is applicable to all residential plots above 100 sq.m. Accordingly, the Ministry of Jal Shakti launched Jal Shakti Abhiyan (JSA) in 2019 as a 'Jan Andolan' to accelerate water conservation and rainwater harvesting at grass-root level through citizen's participation across the country, which was implemented in 1,592 water stressed blocks in 256 districts of the country.</p> <p>As the Various State Governments have mandated installation of rainwater harvesting systems in all new buildings (over a certain size), there is a huge demand for skilled Technicians for system</p> </td> </tr> </tbody> </table>	Basis	In case of other Awarding Bodies (Institutes under Central Ministries and states departments)	Need of the qualification	<p>Government of India along with various State Governments have been promoting the adoption of 'Rainwater harvesting' as a mass movement, as it is an important component for achieving the goals of 'Water Security' particularly in urban areas. Urban centers across the country are facing an ironical situation, as on one hand there is an acute shortage of water (including ground water) and on the other, often the streets are flooded during the rains, reflecting bad planning/inefficiency of the urban local bodies/other stakeholders with regards to (rain) water management. The shortage of ground water is more pronounced due to urbanization and limited open areas available for recharge of ground water.</p> <p>As reported by Press Information Bureau, 2022, 33 States/UTs have adopted the rainwater harvesting provisions. The implementation of the rainwater harvesting policy comes within the purview of the State Government/Urban Local Body / Urban Development Authority. As per Model Building Bye Laws- 2016, provision of rainwater harvesting is applicable to all residential plots above 100 sq.m. Accordingly, the Ministry of Jal Shakti launched Jal Shakti Abhiyan (JSA) in 2019 as a 'Jan Andolan' to accelerate water conservation and rainwater harvesting at grass-root level through citizen's participation across the country, which was implemented in 1,592 water stressed blocks in 256 districts of the country.</p> <p>As the Various State Governments have mandated installation of rainwater harvesting systems in all new buildings (over a certain size), there is a huge demand for skilled Technicians for system</p>
Basis	In case of other Awarding Bodies (Institutes under Central Ministries and states departments)				
Need of the qualification	<p>Government of India along with various State Governments have been promoting the adoption of 'Rainwater harvesting' as a mass movement, as it is an important component for achieving the goals of 'Water Security' particularly in urban areas. Urban centers across the country are facing an ironical situation, as on one hand there is an acute shortage of water (including ground water) and on the other, often the streets are flooded during the rains, reflecting bad planning/inefficiency of the urban local bodies/other stakeholders with regards to (rain) water management. The shortage of ground water is more pronounced due to urbanization and limited open areas available for recharge of ground water.</p> <p>As reported by Press Information Bureau, 2022, 33 States/UTs have adopted the rainwater harvesting provisions. The implementation of the rainwater harvesting policy comes within the purview of the State Government/Urban Local Body / Urban Development Authority. As per Model Building Bye Laws- 2016, provision of rainwater harvesting is applicable to all residential plots above 100 sq.m. Accordingly, the Ministry of Jal Shakti launched Jal Shakti Abhiyan (JSA) in 2019 as a 'Jan Andolan' to accelerate water conservation and rainwater harvesting at grass-root level through citizen's participation across the country, which was implemented in 1,592 water stressed blocks in 256 districts of the country.</p> <p>As the Various State Governments have mandated installation of rainwater harvesting systems in all new buildings (over a certain size), there is a huge demand for skilled Technicians for system</p>				

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		installation, Entrepreneurs and other stakeholders of rainwater harvesting market giving rise to multiple opportunities for both direct employment and entrepreneurship.
	Industry Relevance	The industry validation is submitted along with its summary sheet for reference.
	Usage of the qualification	<ul style="list-style-type: none"> • It would be used by the affiliated training institutes for new short-term trainings/ RPL • The SSC would submit details of the jobs generated and availed (wherever applicable).
	Estimated uptake	Over 20,000 new jobs are expected to be created every year in rooftop rain water harvesting space out of which a substantial number would focus on self-employment. The certified person would deliver the solution to a range of customers including in gated communities, individual households, Government buildings, institutional buildings etc. This is projected that the qualification may also be used by vocational institutes or institution of higher learning as a vocational course.
27	<p>Recommendation from the concerned Line Ministry of the Government/Regulatory Body. To be supported by documentary evidences</p> <p>Request for recommendation shall be sent to MoHUA and accordingly their concurrence would be sought.</p>	
28	<p>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</p> <p>SCGJ has explored the growth trajectory within each occupation after studying organisational charts of various industry players across small, medium and large-scale organizations. Various lateral career opportunities for the concerned qualification have also been explored. With this it was ensured that there is a clear role in terms of performance criteria, academic qualification, experience and skill requirement from lower NSQF Level to higher levels in the hierarchy. Please refer to attached career path/Occupational map which clearly defines the career path in the concerned sector.</p>	

	<p>National Qualifications Register (NQR) was accessed to assess if there was any similar qualification and thus no overlap was found with any existing qualifications.</p>
<p>29</p>	<p>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</p> <ul style="list-style-type: none"> • Agencies have been appointed by the SSC to interact with training providers to gather feedback in implementation. • Monitoring of results of assessments and training delivery • Employer feedback will be sought post-placement • A formal review is scheduled in a 3 years' time

SECTION 4

EVIDENCE OF PROGRESSION

