

N GREEN JOBS NEWSLETTER



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NEW OPPORTUNITIES IN GREEN JOBS

Hon'ble Prime Minister Sh. Narendra Modi
address on INDIA'S 75th Year of Independence

Red Fort | 15th August, 2021



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Extracts from the address by Hon'ble PM on 15th August, 2021

Environment and Renewable Energy

Environmental security is getting the same importance in the world as national security. Today India is a vibrant voice of environmental security, whether it is biodiversity or land neutrality, climate change or waste recycling, organic farming or biogas, energy conservation or clean energy transition. India's efforts in environment are giving results today. Increase in forest cover, number of national parks, increase in number of tigers and Asiatic lions are a matter of happiness for the countrymen.

Among all these successes one truth needs to be understood. India is not yet energy independent. India today spends more than 12 lakh crore rupees annually for importing energy. For India's progress and to build a self-reliant India, India's energy independence is the need of the hour! Therefore today, India has to make a resolution to make India energy independent before the completion of 100 years of independence and our roadmap is very clear for the same. It should be a gas based economy.

There should be a network of CNG & PNG across the country. There should be a target of 20 percent ethanol blending. India is moving ahead with a set goal. India has also made a move towards Electric Mobility and the work on 100% electrification of Railways is also progressing at a fast pace. Indian Railways has set a target of becoming Net Zero Carbon Emitter by 2030. Besides these efforts, the country is also emphasizing on Mission Circular Economy. Our Vehicle Scrap Policy is a great example of the same. Today, India is the only country in the group of G-20 countries, which is moving fast towards achieving its climate goals.

India has set a target of 450 GW of renewable energy by the end of this decade - 450 GW by 2030. Of this, the target of 100 GW has been achieved by India ahead of schedule. These efforts are also instilling confidence in the world. The formation of the International Solar Alliance on the Global State is a great example of the same.

Of every effort being made by India today, the thing that is going to help India with a quantum leap in terms of climate is the field of Green Hydrogen. To achieve the goal of Green Hydrogen, I am announcing the National Hydrogen Mission today with this tricolour as a witness. We have to make India a Global Hub for Green Hydrogen Production and Export in the 'Amrit Kaal'. This will not only help India to make a new progress in the field of energy self-reliance but will also become a new inspiration for Clean Energy Transition all over the world. New opportunities from Green Growth to Green Job are opening up today for our start-ups & youth

Waste and Water Management

Our country has initiated a campaign of water conservation, so it is our duty to include saving water in our habits. If the country is emphasizing on digital transactions, then it is also our duty to do minimum cash transactions. The country has started the campaign of Local for Vocal, so it is our duty to buy as many local products as possible. To strengthen our vision of a plastic-free India of the country, it is our duty to completely stop the use of single use plastic. It is our duty not to throw dirt in our rivers, keep our sea shores clean. We also have to take the Swachh Bharat Mission to another new level.



Hon'ble PM during the Independence Day speech spoke about the role of environment, waste and water management, renewable energy, green hydrogen and green economy to make India truly independent and SCGJ will have to play a significant role in realizing those objectives.

Mr. Sameer Gupta
Chairman, Skill Council for Green Jobs

Message of Chairman

The last few months especially during the second COVID wave have been challenging for the entire country, however now India's economy is getting back on track and poised to rebound sharply after two waves of the Covid pandemic dampened growth. India is also on track to achieve a USD 5 trillion economy by 2025 and skilling will be key to achieve that. There is a huge opportunity for the entire industry, besides SCGJ across renewable energy, energy efficiency, energy security, EV and smart mobility, battery storage, green construction, and now green hydrogen domain. Perhaps in the post COVID World, skilling techniques and methodology may change but they will continue to have a massive role to play to drive the future economic growth.

The various learnings have been made at SCGJ and the council have done a commendable job in adopting digitization by utilizing online and digital tools. SCGJ's Strategy has been to adopt digitization and enhance their participation in various initiatives in skilling across the green business sector. Despite limitations, a lot of good work has happened in 20-21 and in the first seven month of current FY.



From CEO's Desk

The announcements by Hon'ble Prime Minister on 15th August, 2021 from the ramparts of Red Fort about clean energy transition of India brings lot of opportunity for skilling and jobs in the Green Energy sector. The highlights and important action points of his speech are:

- To make India energy independent before the completion of 100 years of independence (Year 2047)
- There should be a network of CNG & PNG across the country. Fixing a target of 20 percent ethanol blending (in petrol/diesel)
- The country is also emphasizing on Mission Circular Economy
- India has set a target of 450 GW of renewable energy by the end of this decade - 450 GW by 2030
- He announced the National Hydrogen Mission
- Make India a Global Hub for Green Hydrogen Production and Export during next 25 years.
- Move towards Clean Energy Transition
- New opportunities from Green Growth to Green Job are opening up today for our start-ups & youth.

In the Waste management Sector he emphasised on

- Campaign of water conservation
- Plastic-free India, completely stop the use of single use plastic
- To take the Swachh Bharat Mission to another new level

In the renewable energy sector, short term training has been imparted to over 1 lakh people under PMKVY, MNRE and market mode. There are 39 approved QPs in the renewable energy sector. The Skill Gap study for renewable energy sector carried out by Skill Council for Green Jobs estimates that the target of 450 GW of renewable energy capacity by 2030 will lead to jobs for about 14.5 lakh people. The effort of STT in Renewable Energy sector needs to be strengthened as it offers job opportunity to about 15 lakh people in next 10 years.

On the subject of 20 percent ethanol blending (in petrol/diesel), SCGJ has 4 approved QPs on the collection of bio mass and making it as input material for Bio CNG Plants. With the current level of targets, this sector offers an opportunity of about 2 lakh jobs in next 10 years. However, with increased focus of the Government, this opportunity could be many folds.

The announcement of the National Hydrogen Mission and making India a Global Hub for Green Hydrogen Production and Export during next 25 years is absolutely a new opportunity for skilling and jobs. This was first announced in the Union Budget for 2021-22 in February this year. SCGJ will immediately start skill gap study of this sector. It will be a cross disciplinary sector as PM has talked about Green Hydrogen, which means it has to be using Renewable Energy sources. Hon'ble PM himself has mentioned that "New opportunities from Green Growth to Green Job are opening up today for our start-ups & youth" Accordingly, specific program has to be launched for entrepreneurship development in these sectors.

Dr. Praveen Saxena
CEO, Skill Council for Green Jobs



13th GOVERNING COUNCIL MEETING

The Thirteenth Meeting of the Governing Council of Skill Council for Green Jobs was held at 11.00 am on 21st September, 2021, under the Chairmanship of Mr. Sameer Gupta, Chairman and Managing Director, Jakson Group, through video conferencing. He complimented SCGJ's efforts in continuing with the activities during the pandemic period and also appreciated SCGJ had done a commendable job in adopting digitization by utilizing online and digital tools. He also highlighted that Hon'ble PM during the Independence Day speech spoke about the role of environment, waste and water management, renewable energy, green hydrogen and green economy to make India truly independent and SCGJ will have to play a significant role in realizing those objectives. Mr. Gupta invited Mr K Krishan, former Chairman, SCGJ to share his experience and recent developments in BRICS Business Council activities.

Mr K Krishan indicated that some of the key outcome of the BRICS Energy and Green Economy working group which have been approved by the members states and which will give stimulus to the green economy industry, includes voluntary green certification, carbon footprint declared on products and services and formation of clean energy fund under the aegis of New Development Bank. He also highlighted that at the forthcoming climate week in Dubai and subsequently in COP26, Article 6 of the Paris Agreement i.e., market mechanism will get a lot of focus as the old regime will change to Internationally Transferred Mitigation Options (ITMOs). He mentioned that potentially greening trade skills in MSMEs will also have huge impacts, like the positive impacts being shown through trainings in waste management, under the broader umbrella of Swachh Bharat Abhiyan. This was followed by a formal presentation of the activities of SCGJ and a proposal for a Business plan 2021-2030.

- **10 Skill Gap studies.**
- **100 NSQC approved QPs.**
- **B.Voc program in RE, WM and Sustainable Development in 75 Universities.**
- **750 credible Training Centres** in the domain of Renewable Energy, Waste Management, Green Buildings and Green Transportation sectors.
- **50 credible Assessment Agency**
- **20 Center of Excellence in all the States**
- **Encourage and Take up Professional Development Activity on a regular basis.**
- **Certified Trainers number to 7500 and Assessors to 1200**
- **Certify 6 lakh candidates in short term trainings and 20 lakh candidates under RPL trainings. (Placement of 5 lakh candidates)**

Standards & Research Group

MAJOR ACTIVITIES

OM AND SKILL GAP

Initiated Occupational Mapping, Skill Gap Analysis and Development of National Occupational Standards across a range of new segments including Pollution Control and Environmental Conservation, Small Hydro, Solar Water pumps, including micro irrigation; and micro grids.

E- LEARNING

The GIZ supported e- Learning platform on waste water plant technician and solar grid engineer have been made operational. Multiple E content have been developed on waste management through HCL CSR support.

SKILL GAP ANALYSIS

“Creating Jobs and Income: Solar Mini Grids making difference in Rural India” Case Study by SCGJ, CEEW, and NRDC was published in March 2021. Employment Potential of Emerging Renewable Energy Technologies, Insights From The Floating Solar Sector, SCGJ, CEEW, and NRDC was published in March 2021.

REVIEW OF QPS

The revision of solar PV QPs was completed. Out of the 20 QPs on Solar PV, 14 QPs were revised and presented to NSQC for approval. The revision of 14 QPs in solar domain and 5 in sanitation and waste management have been approved by NCVET with new validation date up to March, 2024.

- 8 Qualification Packs on Wind Energy have been reviewed by the NOS committee on wind energy. These QPs are being revised.
- A study on “Future Job roles in Operation and Maintenance of Bio CNG Plants” has been completed by jointly by SCGJ and KPMG. 4 new QPs and training material for most promising job roles have been developed.

VIDEO CONTENT

Covering the best practices for solar rooftop installation including “Dos and Don'ts” have also been developed with support from Hero Future Energies.

IMPACT ASSESSMENT

Report For Suryamitra Training Program, was completed in December 2020

Assessment & Assurance Group

MAJOR ACTIVITIES

S.No	Scheme	Candidates Certified*
1	PMKVY 2.0	2,132
2	PMKVY 2.0 special projects	563
3	PMKVY 2.0 RPL 2 program	35,983
4	Govt Schemes e.g., MNRE, NSKFDC, NULM, NBCFDC etc.	12,100
5	Market mode program	1,174
6	State Govt Funded Programs	1,904
7	Conducted TOT	136 Trainers
8	Conducted TOA	77 Assessors

*During April 2020-August 2021

S.No	States	Candidates Trained
1	Chhattisgarh	600
2	Haryana	346
3	Maharashtra	301
4	Tamil Nadu	607
5	Uttar Pradesh	465
6	Punjab	317
7	Jharkhand	90
8	Bihar	100
9	Andhra Pradesh	199
10	Madhya Pradesh	150
Grand Total		3175

SAFAI KARMACHARI TRAINING UNDER SANKALP PROJECT

SCGJ provided RPL training to 480 candidates working in Panchayats of districts Varanasi and Chandauli. The certificates were given by the Minister of Skill Development and Entrepreneurship, Hon'ble Shri Mahendra Nath Pandey.

RENEWABLE ENERGY IN INDIA SKILLS 2021 AND WORLD SKILLS 2022

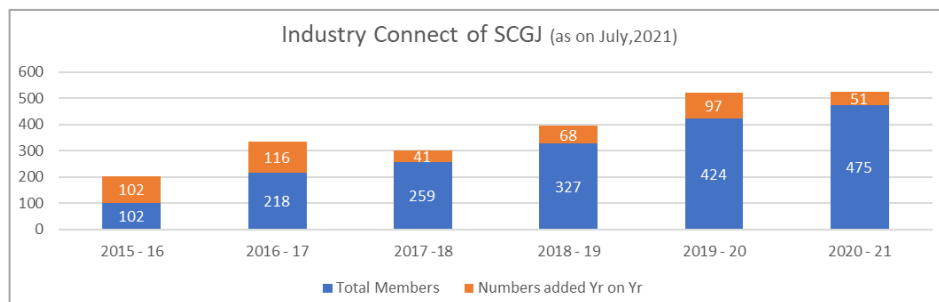
SCGJ is facilitating organization of India Skills in renewable Energy and Water Technologies and preparing the candidates from all over the country. SCGJ has organized weekly Industry Led preparation Sessions for the registered candidates. So far **10** such sessions have been organized.

SCGJ E-LEARNING MANAGEMENT SYSTEM (SEMS)

“SCGJ E-Learning Management System” (SEMS), Launched on 15th August 2020. More than 50 Training Partners have registered on SEMS with about 15 -20 Training modules live at a given time.

Marketing & Partnerships Group

MAJOR ACTIVITIES



SCGJ achieved enrollment of 97.33% and assessment of 93.59% of the total target of 3,08,209 numbers under RPL Type 4- Best in Class Employer “BiCE” Certification Program under PMKVY.

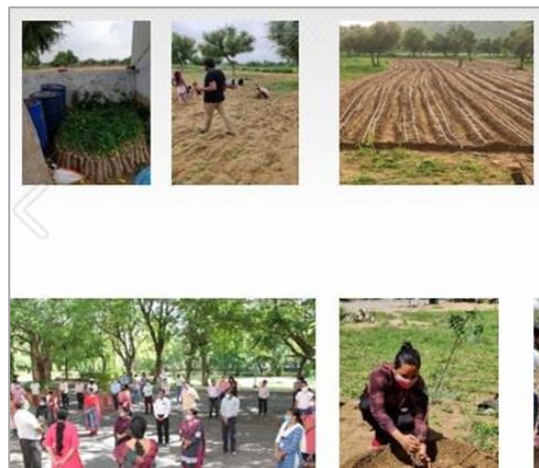
SCGJ is actively participating in “Involve the Guru” Skilling Entrepreneurship –A combined effort with Madhya Pradesh State Open School Education Board (MPSOSEB) to celebrate the “Azadi ka Amrit Mahotsav” through World on Wheels (WOW) of Entrepreneurship Development Institute of India (EDII).

Participation in over 45 advocacy, skill development related events & exhibitions including Skill Competitions, meetings and Kaushal Melas; majority of which were done online.

SCGJ participation in Skill Se Smile Campaign

Celebration of World Environment Day “Yeh Dharti Hamari Hai”

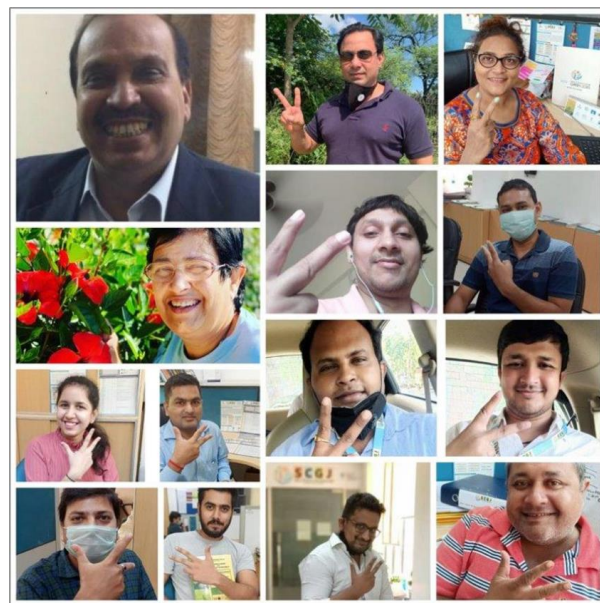
SCGJ’s partners planted 2,291 saplings & plants.



Partners Plantation Drive	
Neembu	450
Aldu Neem	300
Drumstick	250
Arjun	150
Kerunda	200
Jamun	50
Sisam	40
Others	101
Total	1541

750 Saplings Planted

Total Saplings Planted 2291



Swachh Bharat Mission and Green Jobs

Dr. (Mrs.) Parveen Dhamija
Advisor, SCGJ



Ever since independence efforts have been made to achieve a healthy and clean environment. Our Father of the Nation, Mahatma Gandhi had also emphasized that cleanliness and sanitation should be an integral part of healthy living. Many programmes have been launched by successive Governments but with limited success. As a part of this drive, the Swachh Bharat Mission was launched on 2nd Oct 2014 to solve the problems of sanitation and waste management in India by ensuring hygiene across the country. The objectives of the first phase included eradication of manual scavenging, generating awareness and bringing about a behavior change regarding sanitation practices, and augmentation of capacity at the local level. The second phase aimed to sustain the open defecation free status and improve the management of solid and liquid waste. This Mission is the biggest social initiative and is being implemented in both rural and urban areas. It has created vast employment opportunities for jobs in waste management, wastewater treatment and septage management for collection, segregation, processing/treatment and recycling. Skill Council for Green Jobs (SCGJ) has taken many initiatives with its partner industries, State Skill Missions and Training Partners (TPs) for capacity building in cutting edge climate friendly green technologies in all these sectors.

In line with the Swachh Bharat Mission and target of the Government of India to achieve Open-Defecation Free (ODF) status, Skill Council for Green Jobs, in consultation with Ministry of Drinking Water and Sanitation, Ministry of Housing and Urban Affairs and National Safai Karamcharis Finance & Development Corporation (NSKFDC) developed 5 Qualification Packs (QPs) for different jobs roles covering the skilling and training requirement of workers working in waste management and septage management. These Qualification Packs are as per National Skill Qualification Framework (NSQF) levels and cover technical aspects, behavior & communication skills and health and safety guidelines as described in table 1.

SCGJ has been working very closely with NSKFDC and has developed skill development programme for Safai Karamchari & waste pickers. SCGJ through its Training Partners has imparted skilling and capacity building of over 3 lakh Safai Karamcharis and 2500 waste pickers in 18 States, which was technically and financially supported by NSKFDC and under PMKVY of MSDE. SCGJ also prepared Participant's Handbooks (PHs) and safety kits which were provided to the candidates. For awareness creation on solid waste management, videos were prepared for use by HCL Foundation through CSR grant.

A key strategy under SBM (Urban) was creating public awareness for behaviour change to ensure that sanitation as an issue is mainstreamed with the general public at large and covers issues of open defecation, prevention of manual scavenging, hygiene practices, proper use and maintenance of toilet facilities (household, community or otherwise), etc., and its related health and environmental consequences.

S.No	Qualification Pack Title (Job Role)	NSQF Level	Description
1	Safai Karamchari	3	Responsible for sweeping, cleaning and removing garbage from public areas and buildings. She/he will be trained to use the most suitable tools, equipment, cleaning solutions, and carry out broad segregation for proper aggregation to a designated area, and also dispose the garbage in correct disposal bins/composting.
2	Recyclable Waste Collector & Segregator	4	Responsible for collection and proper segregation of Recyclable waste. She/He would be able to properly collect, identify different types of waste and segregate at source or at collection center as per recycling / reuse / disposal requirement.
3	Waste Picker	3	Responsible for collecting waste to recover reusable and recyclable solid waste for sale to recyclers directly or through intermediaries to earn his / her livelihood. She/He would be able to prepare the equipment used for waste collection, identify source of waste generation in local area including the streets, bins, landfills, material recovery facilities, processing and waste disposal facilities. As per type of refuse, he/she would suitably modify the collected waste, possibly for a better value.
4	Septic Tank Technician	4	Responsible for fabrication of different types of septic tanks/ soak pit and install at the site(commercial/institutional/residential). He/ She also undertake the work of repair and maintenance of existing septic tanks.
5	Desludging Operator	4	Responsible for emptying, transport and disposal of faecal sludge from the septic tank to desludging site / Faecal Sludge Treatment Plant. He /She has to operate pumps, suction hoses and other machinery/equipment to empty the septic tank and appropriately dispose the sludge. As an entrepreneur he/she would be trained to venture into desludging services for managing Faecal Sludge.

Table 1: QPs under waste management and septage management

The Manual Scavengers and their Rehabilitation Act 2013 bans hazardous cleaning of sewer/ septic tanks which may endanger the life of workers and outlines the obligations of the Employer to ensure observance of safety precautions, as may be prescribed or provided in any other law, for the time being in force or rules made thereunder. SCGJ conducted workshops in big municipalities on the perils & precautionary measures for hazardous cleaning of sewers and septic tanks to sensitize the key stakeholders including the senior officers of municipalities, engineers, sanitation supervisors, contracts etc. This was done as a part of year long celebration of 150th birth anniversary of Mahatma Gandhi and was supported by the Ministry of Social Justice and Empowerment, through NSKFDC.

In the area of Faecal Sludge and Septage Management(FSSM), SCGJ in consultation with Ministry of Housing and Urban Affairs(MoHUA) carried out a study to understand the labour demand and supply scenario in the FSSM sector, the existing skill gaps, and identification of types of skills that would help bridge the gaps with focus on the construction of toilet with septic tanks / Soak pits, emptying/desludging and treatment process of the sludge in on-site sanitation system (OSS) and the supporting systems in this ecosystem. As per the study, there are major gaps in safe faecal sludge and septage management across the Faecal Sludge and Septage Management (FSSM) value chain including septage collection, conveyance, treatment and reuse/disposal. The on-site pit latrines and septic tanks which account for substantial proportion, its safe emptying/desludging and treatment continues to be a huge challenge.

Based on the findings of the study, SCGJ in consultation with Ministry of Housing and Urban Affairs(MoHUA) and relevant stakeholders has developed Qualification Packs of Septic Tank Technician for fabrication of septic tanks and Desludging Operator for carrying out operations for emptying, transport and disposal of faecal sludge from the septic tank/sewers to desludging site / Faecal Sludge Treatment Plant. As a first step SCGJ conducted a two day Recognition of Prior (RPL) Learning Training for Septic Tank Technicians/masons. The RPL was focused to upskill the Septic Tank Technicians working with Centre for Advocacy and Research (CFAR) for the fabrication of septic tank or installation of the prefabricated septic tank at the site/onsite (commercial/institutional /residential). SCGJ also implemented a project for awareness cum sensitization training on hazardous cleaning of sewers and septic tanks for 6000 Desludging Workers across 242 cities as a part of SafaiMitra Suraksha Challenge' launched by MoHUA. SCGJ has successfully completed 3112 candidates trainings by March 2021 against the target of 6000 trainings across 10 States.

Water availability is also one of the important and vital issues for India. With rapid expansion of cities and domestic water supply, quantity of gray/wastewater is increasing in the same proportion. Thus, wastewater/low quality water is emerging as potential source for demand management after essential treatment. Performance of state-owned sewage treatment plants, for treating municipal waste water, and common effluent treatment plants, for treating effluent from small scale industries, is also not complying with prescribed standards. Thus, effluent from the treatment plants, often, not suitable for household purpose and reuse of the waste water is mostly restricted to agricultural and industrial purposes which is not suitable for human health and the environment. Keeping in view, the urgent need for efficient water resource management through enhanced water use efficiency and waste water recycling, SCGJ carried out sector analysis of water management with KPMG to understand the skill gaps, value chain & process flow and identified key job roles in waste water treatment. As per the studies there is a need to skill and train the workforce deployed for the CETPs/STPs/ETPs operation so as to improve the efficiency ensure environmental compliance and health and safety measures of the workers. SCGJ studied the requirement for different job roles in wastewater sector and developed QPs for Wastewater Plant Technicians and Helpers as follows:

S.No	Qualification Pack Title (Job Role)	NSQF Level	Description
1	Wastewater Treatment Plant Technician	4	Responsible for operation, maintenance and safety of the Industrial and Housing Societies Wastewater Treatment Plant. S/he will learn to enhance the performance of waste water treatment plants and ensure compliance to the standards stipulated to reduce pollution for greater environmental protection.
2	Wastewater Treatment Plant Helper	3	Assists in Operation and Maintenance of Industrial and Housing Societies Wastewater Treatment Plant

Based on the interaction with the management of the Common Effluent Treatment Plants (CETPs) in Delhi, training was provided to 118 wastewater treatment plant technicians from 8 CETPs. The trainings helped the CETP's staff to focus on operational processes, maintenance issues and optimize the wastewater treatment in compliance with legal requirements, environmental and hygiene-conscious manner. The trainings were also planned for the STPs in Haridwar set up under National Mission on Clean Ganga but were not taken up due to the Covid pandemic.

A huge shift has been seen in Indian people after the launch of Swachh Bharat Mission. As per "Swachhata Sandesh Newsletter" by the MoHUA, as of January 2020, 81,135 wards (96.05 percent) out of 84,475 wards across India have achieved 100 percent door-to-door waste collection including all wards in Andhra Pradesh, Arunachal Pradesh, Chhattisgarh, Goa, Gujarat, Karnataka, Madhya Pradesh, Mizoram, Rajasthan, Sikkim and Uttarakhand. All UTs, too, now have 100 percent provision of door-to-door collection. Skill Council for Green Jobs, had successfully trained above 3 lakhs Safai Karamcharis and 2500 waste pickers of Municipal Corporations in 18 States for mechanized cleaning, segregation, collection and composting of waste. SCGJ is continuing these efforts and is also working on developing job roles on processing and treatment of solid waste. Under SBM, more than 6,03,000 villages and 4360 cities across the country have declared themselves open defecation free (ODF). However, safe toilets, with well-managed black and grey water, are the need of the hour, particularly in rural areas where on-site sanitation is the only solution. Skill Council for Green Jobs had initiated trainings for faecal and septal management by training technicians for fabrication/ construction of septic tanks and operators for carrying out desludging operations. These trainings would be continued for wider coverage. The second Phase of Swachh Bharat Mission is continuing focus on complete fecal sludge management, waste water treatment with effective waste management. The trainings by SCGJ for capacity building in wastewater treatment plants will continue and efforts will be made to cover septic/sewerage systems. Due to ensuing Covid pandemic, SCGJ has also developed training modules in wastewater for online training through SEMS portal and Open Education Platform. Thus, SCGJ has continued its efforts for promoting skilled workforce for environmentally friendly green technologies so as to minimize the pollution and depletion of natural resources and maintain a clean and healthy environment essential for our growth and survival.



Safai Karamchari
(Practical Demonstration of Cleaning)



Septic Tank Technician



Desludging Operator



Wastewater Plant Technician

“Involve the Guru” Skilling Entrepreneurship

Ms. Sangeeta Patra
Head - Marketing & Partnerships



SCGJ is combining efforts with Madhya Pradesh State Open School Education Board (MOSOSEB) for the aforesaid journey to celebrate the “Azadi ka Amrit Mahotsav”

The purpose is to first “Involve the Guru” in the state’s EFA schools in the 53 districts, so that they first become aware of what is in store for them and the students to expand their knowledge and be skill worthy as “Hunar hai to kadam hai”. As also to spread the message in these 53 districts of Madhya Pradesh by marketing aids to the general public.

This will imbibe the will to get certified in their domain either in existing skill or aspired for SCGJ will spread the information on the various Job Roles courses available for students from 6th class onwards. The exposure to these courses will help children to finally decide by class 9th to then choose a course for skilling themselves in the required courses on skill development entrepreneurship will get included as a course taught in these schools

For this program SCGJ has also joined hands with Entrepreneurship Development Institute of India (EDII). They have provided the mobile lab bus & Trainers called “World on Wheel” for this purpose.



Azadi ka Amrit Mahotsav

Mr. Arpit Sharma
Head - Assessment & Assurance



Government of India is commemorating 75 years of progressive India and the glorious history of it's people, culture and achievements by celebrating 'Azadi Ka Amrit Mahotsav'. The 75th anniversary of India's independence is a testament to its march from a young nation to an economic superpower today. Much of this journey has been possible due to the rich heritage of skills and craftsmanship that has strengthened the country. It is indeed a step towards aligning all its efforts with the larger vision of building a New India. As a part of the 'Azadi ka Amrit Mahotsav' 2021-22, Skill Council for Green Jobs (SCGJ) is organizing a series of Webinar on Sustainable Development, Renewable Energy and Waste Management by inviting eminent and learned Speakers so as to deepen the understanding of recent developments in these sectors. The first in the series was launched on 24th September 2021 by Mr. Sameer Gupta – Chairman (SCGJ) and Dr. Praveen Saxena – CEO (SCGJ). During the launch Dr. Adarsh Kumar Pandey, Assistant Professor from Sunway University, Malaysia took the initiative to deliver a valuable lecture on "Global Sustainable Development Renewable Energy and Waste Management" with the participation of 260+ guest. SCGJ's CEO Dr. Praveen Saxena also introduce its newly build website during the launch of the Azadi Ka Amrit Mahotsav under the name <https://scgj.azadikaamritmahotsav.in/> which was highly appreciated by all the participants.

Azadi ka Amrit Mahotsav

Approaches for diversifying skilling needs and jobs creation in Green Business sector

Deepak Rai

Head Standards and Research, SCGJ

Over the past few decades, the green jobs concept has evolved into an international agenda that is being championed around the world by Governments, industry and all other stakeholders, for an accelerated transition towards a green economy. A skilled workforce is absolutely necessary to support green growth and to realize the opportunities a green economy offers. Over the last few years, India has made significant progress in utilizing its abundant renewable energy resources. It has emerged as one of the leaders of the global clean energy transition, with a cumulative renewable energy installed capacity of 94.5 GW by March 2021, and has ambitions to meet a target of 175 GW by the year 2022. Further, the Government of India aims to install 450 GW of renewable energy by 2030, in line with its commitment to the UNFCCC. For a country like India, which is the world's third-largest GHG emitter, the clean energy sector is extremely crucial as it can help in tackling climate change while reducing the consumption of fossil fuels. Jobs created in the domestic renewable energy space offer a significant opportunity to meet the Government's multiple goals of employment generation, improving clean energy access, poverty alleviation and economic development. Continuous implementation of skilling and capacity development activities is critical for the success of the Indian renewable energy sector – both in accelerating its growth at the required scale and pace; and enabling people to benefit from it.

Through the mandate of Skill India Mission, the Government of India aims to rapidly catalyze skill development initiatives which can potentially have a multiplier effect in the economy. SCGJ's skill development strategy in alignment with the mission's objectives, aims to work in close collaboration with the industry for designing and implementing a range of skill development initiatives. While recognizing the importance of how green economy will create new opportunities for technologies, investment, and jobs, countries with well-developed and responsive skills development ecosystem like ours are mandatorily incorporating environmental/greening considerations as a cross-cutting issue in training programmes at all levels across key sectors. With such measures, the business case for greening both the economy and the job market are becoming increasingly powerful.

Since its inception, SCGJ has created 51 qualifications, across various thematic areas including solar PV, solar thermal, biomass, waste/ waste- water management, clean cooking and wind energy.

Sector-wise Job Roles	NSFQ Job Levels						QPs developed	NSQC approved
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7		
Solar Photovoltaic	1	0	7	6	3	3	20	15
Solar Thermal	0	0	2	1	0	0	3	-
Biomass Energy	0	0	3	0	1	0	4	4
Waste Management	0	3	4	0	1	0	8	8
Waste Water Treatment	0	1	3	0	0	0	4	2
Clean Cooking	0	1	2	0	1	0	4	4
Wind Energy	0	0	6	1	1	0	8	-
Total	1	5	27	8	7	3	51	33

So far, majority of the trainings have been conducted on qualifications related to solar PV and waste/waste-water management, resulting in over 4.95 lakhs certified trainees till date. One of the key focus areas is to ensure that trainings across majority of the qualifications are also routinely carried out, either through Government support or through the wider market mode in physical or online/virtual setting. Efforts are also being made to increase the flexibility and job opportunities of the workforce, by introducing suitable approaches for multi -skilling across the domain. Such measures also call for collaborations with other sector skills councils to create qualifications with a focus on delivering improved flexibility, and productivity for both the skilled trainee and employer. Further, continuous efforts are also being made to explore opportunities for creating linkages with industry and other agencies for delivering “on the job trainings” through implementing National Apprenticeship Promotion Scheme (NAPS).

SCGJ is also actively engaging with relevant stakeholders to identify re-skilling and upskilling opportunities, by focusing on (1) clearly identifying worker’s needs, (2) identifying evolving requirements of the industry on new technologies and market segment; (3) determining essential skills which can be taught virtually (4) facilitating allocation of reskilled workers to new job roles & responsibilities.

New Qualifications are also being continuously developed and existing ones are being reviewed in consultation with the industry and other stakeholders, to maximize their training and jobs creation potential. In this reference, the following 10 new qualifications across various renewable energy technology segments are at the advance level of completing the required approval/validation process.

1. Small Hydro: Small Hydro Power Plant O&M Technician (level 4) The qualification has been designed in consultation with Alternative Hydro Energy Centre, IIT Roorkee and the industry, keeping in mind with the potential growth opportunities of the sector.
2. Compressed Biogas Plant (CBG): Plant Head - A. Operations CBG/WTE [level 7] B. Supervisor - O&M CBG/WTE [level 5]; C. Technician - O&M CBG/WTE [level 4]; D. Feedstock Manager (Procurement and Composition) [L 6]

All these job roles have been identified after engaging with the Biogas/Bio CNG/Waste to Energy industry, which have also got significant impetus through the recent implementation of “Sustainable Alternative Towards Affordable Transportation” (SATAT) policy. CBG presents a commercially viable option as it can be directly used to replace CNG in transportation fuel. CBG can be produced from any biomass, be it crop residue, cattle dung, sugarcane press mud, municipal wet waste or effluents from a sewage treatment plant and holds a win-win solution to the country’s air pollution problems, while creating new employment opportunities including in rural areas.

3. Solar water pumping: 5 job roles including A. Solar PV (Pumps) Sales Executive [level 4]; B. Solar PV (Pumps) Sales Manager [level 5]; C. Solar PV Project Engineer (Pump) [level 5]; D. Solar PV (Pumps) Design Engineer/Application Engineer /Specialist [level 5] and E. Solar PV Pump Installation & Maintenance Manager/ Solar Pump Entrepreneur (I&M) [level 6]

Further, initiatives are also being taken to actively identify future job roles and skilling opportunities in solar sub-segment like floating solar, solar PV- wind hybrid, mini grids, solar based EV charging infrastructure, to other segments like green & sustainable construction, along with the niche but rapidly evolving “green hydrogen” sector to create skilled and trained workforce at scale. These segments are likely to be at the forefront of green growth transition, while presenting significant opportunities for achieving the goals of economic & social development, environmental improvement and jobs creation.

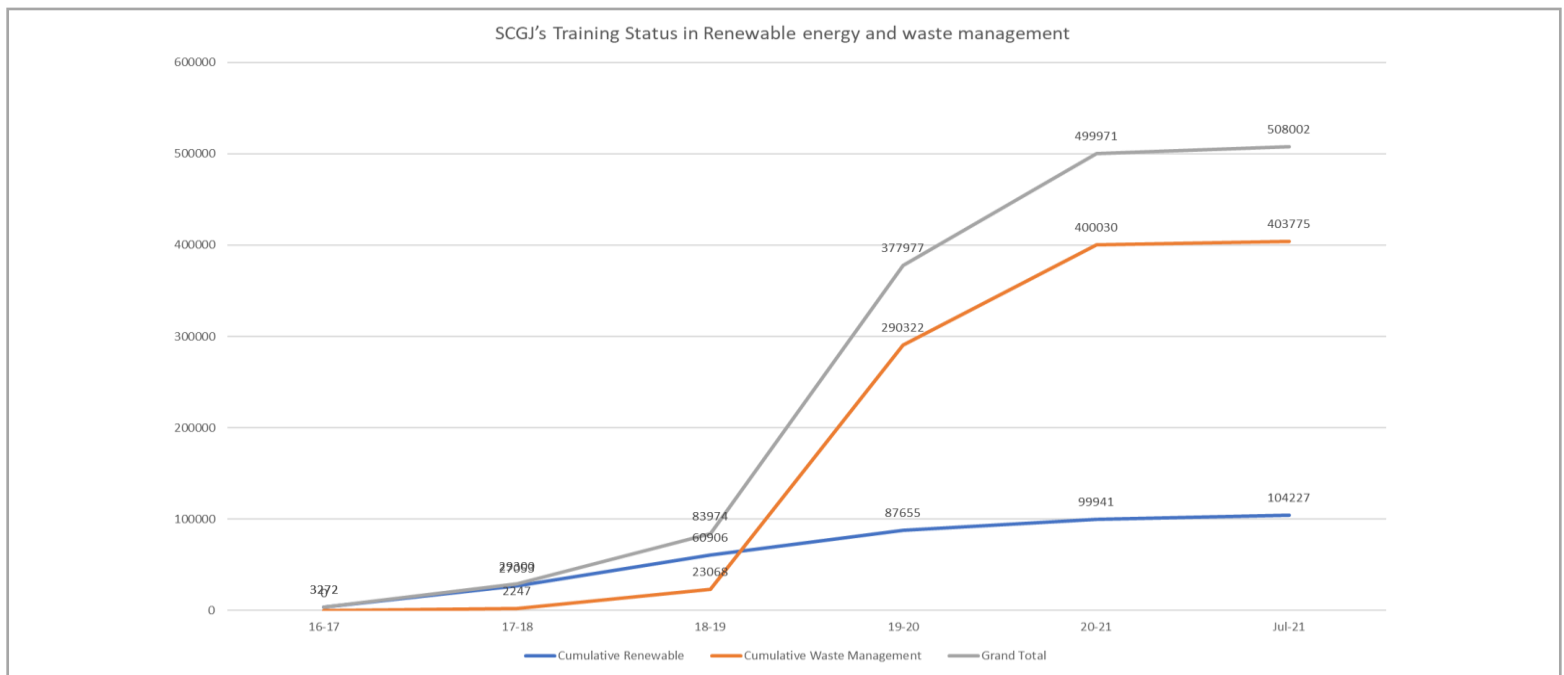
In addition, consultations with a range of stakeholders are also being done to undertake training needs assessment, create structured module and curricula and implement induction trainings, while meeting other capacity building needs of selected statutory organisations in the domain of prevention and control of pollution and environment protection. Keeping in view the paucity of trained personnel especially at the entry level, support for building institutional capacity with respect to trained man-power needs shall be extensively provided to cater to organisational needs. Opportunities are also being explored to enhance the existing training delivery system through integrating Augmented Reality/Virtual Reality (AR /VR) based technology solution, particularly on selected solar qualifications. With using such innovative technologies, immersive training experience can be delivered to solar technicians (for installers/O&M functions) to help them learn complex real- life challenges faced in the industry.

Being the only common thread between employers (green business) and rest of the skilling ecosystem; SCGJ is continuously strengthening industry engagement to develop targeted & industry-based programs; and facilitate industry mentor interns & apprentices to prepare the new workforce. One of the key concerns across training stakeholders is ensuring continuous participation of the industry and their buy- in of the whole skilling initiatives. While in recent years, awareness and sensitisation among all types of employers about training and up- skilling have significantly improved, yet a wider consensus needs to be built. SCGJ recognises that, skills development system particularly in this inter disciplinary and cross-sectoral domain need to go beyond matching training to labour market needs. With that in mind, a range of initiatives are being taken to enable SCGJ play a catalytic role in driving future economic green growth while creating opportunities for new technologies, investment, jobs and entrepreneurship.

SCGJ Through Data

FY 2021 - 2022

CUMMULATIVE TRAINING(July 2021) = 5,08,002



SCGJ Job Role Wise Training FY 2021-22

Financial Year	Job Role	Total Trainings	Total Certifications
2021-2022	Rooftop Solar Grid Engineer	81	78
	Rooftop Solar Photovoltaic Entrepreneur	74	58
	Safai Karamchari	8282	8060
	Solar Electric System Installer & Service Provider – RNE 70	53	46
	Solar Lighting Technician	111	104
	Solar PV Installer - Electric	648	556
	Solar PV Installer (Suryamitra)	4604	4220
	Waste Picker	720	718
	Wastewater Treatment Plant Helper	50	47
	Wastewater Treatment Plant Technician	24	24

Events & News

Skill Council for Green Jobs

Annual study on skilling and employment in Indian Solar and wind energy sector

Annual study on skilling and employment in Indian Solar and wind energy sector

SCGJ in partnership with Council For Energy Environment and Water (CEEW) and Natural Resources Défense Council (NRDC), has been periodically undertaking annual studies on employment and skilling in the Indian Solar and Wind Energy sector. Due to the pandemic, the study for FY 20-21 could not be carried out, however that gap is being addressed with a recent study which also attempts to update on the status of the workforce employed and to quantify the impact of the Covid-19 pandemic across the Indian wind and solar industry. This study which is planned to be released in the run up to COP 26, further builds on the previous work carried out by CEEW-NRDC - SCGJ through assessing market-based information on jobs created, workforce employed, and the skills required to achieve India's renewable energy goals. In that reference, primary data survey has been carried out through industry survey supported with desktop assessment to estimate on the workforce and the jobs created within the Indian solar and wind energy sector, factoring in the broader impacts due to the pandemic.

Estimates on the future employment potential in the sector have also been mapped across various scenarios to achieve India's target of 450 GW of renewable energy by 2030. Job creation, skill development and clean energy sector are all key priorities for the Indian government and the report highlights the keys aspects and tracks various developments across all these priority segment and outlines opportunities that the fast growing domestic renewable energy market offers to meet the government's multiple goals of employment generation, clean energy expansion, and economic development. This is an important initiative by CEEW-NRDC-SCGJ to routinely track the progress of the sector in terms of both current and future skills and employment.

Upskilling trainings under the GIZ funded Indian Rooftop PV Installers Skilling and Employment (IRISE) Project

SCGJ has been implementing IRISE project supported by GIZ to improve PV rooftop installation quality through Upskilling Indian solar installers (certified Suryamitras) through conducting 10 days training batch. One of the key objectives of the project is to upskill 1500 "certified suryamitras" through 30 training partners located across 13 states and UTs on various technical and entrepreneurial aspects of PV Port, an innovative plug and play energy system along with various technical aspects on improving the overall quality and safety of solar rooftop installations. So far over 1000 certified suryamitra candidates have been upskilled through conducting over 40 training batches across the country. Due the restrictions imposed by the pandemic, most of these physical trainings could not be conducted earlier however with the relaxations of the restrictions in the last few months; many of these upskilling training batches were created and the trainings were conducted with a focus on enhancing the employability of trained and certified suryamitra.



Upskilling suryamitra is a very timely and much needed initiative to support the supply of skilled installers and technicians for the Indian solar sector to meet the rising demand of the industry for skilled workforce. Based on the recent success of such a training intervention, additional targets of upskilling 450 candidates with the support of 15 more training partners have been provided under the project. In this reference, the project is in process of onboarding 15 additional training partners who would also receive a PV Port system, as done by 30 training partners in the earlier phase of the project. One of the key novel aspects of this project is that through the TOTs, the trainers of these TPs also get an opportunity to learn from many German and Indian experts and Master trainers on PV Port, besides various other aspects like best practices to improve quality and safety in solar rooftop installations. During the upskilling trainings, the same learning and experience is shared with the certified suryamitras with a wider objective to improve the supply of skilled and certified candidates for the fast growing sector. SCGJ is continuously implementing various skilling interventions including upskilling to ensure that the supply of skilled workforce is always made available. had been mapped to commence from 7th July 2021 in Government Higher Secondary School No.1 in Ashok Nagar.



13th Governing Council Meeting | 21st September 2021



Blue Circle Community: Webinar on Clean Energy Transition: Skills shortage and a globally ageing workforce 21st September 2021



The Minister of State (IC) Technical Education, Training & Skill Development Dept., Govt. of West Bengal, Dr. Humayun Kabir, IPS (VRS) during West Bengal Skills 2021





Azadi Ka Amrit Mahotsav

#Skill4NewIndia

SCGJ celebrates Azadi ka Amrit Mahotsav with a series of 75 webinars on Sustainable Development, Renewable Energy, and Waste Management

Inauguration of Webinar Series by
Mr. Sameer Gupta
Chairman, Skill Council for Green Jobs





Inaugural Webinar
24th SEPTEMBER 2021, 12:00 PM

ZOOM
Meeting ID: 826 3950 9796
Passcode: SCGJ

FACEBOOK LIVE
www.facebook.com /Skillcouncilforgreenjobs/

WEBINAR TOPIC
Importance of Sustainable Development Goals and ways to achieve it
by **Dr. Adarsh Kumar Pandey**
Associate Professor, Sunway University, Malaysia

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Azadi Ka Amrit Mahotsav

#Skill4NewIndia

Skill Council for Green Jobs
Presents Webinar On
Importance of Sustainable Development Goals and ways to achieve it


LIVE STREAMING | 24th SEPTEMBER 2021 | 12:00 PM

ZOOM
Meeting ID: 826 3950 9796
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FACEBOOK LIVE
www.facebook.com /Skillcouncilforgreenjobs/

Guest Speaker
Dr. Adarsh Kumar Pandey
Associate Professor
Sunway University, Malaysia



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Azadi Ka Amrit Mahotsav

#Skill4NewIndia

SCGJ celebrates Azadi ka Amrit Mahotsav with a series of 75 webinars on Sustainable Development, Renewable Energy, and Waste Management

Join us for the webinar on
Entrepreneurial Opportunities in Solar

LIVE STREAMING | 1st OCTOBER 2021 | 12:00 PM

ZOOM
Meeting ID: 885 2939 8914
Passcode: SCGJ

FACEBOOK LIVE
www.facebook.com /Skillcouncilforgreenjobs/

Guest Speaker
Mr. Vamsi Krishna
Director, Institute of Solar Power Energy & Vocational Training



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FREE ONLINE TRAINING

Standard Operating Procedure for the Solar PV Plant Installation

11th & 12th OCTOBER 2021 | 2:00 PM - 4:00 PM

REGISTER & ENROL NOW

SCGJ E-learning Management System
www.sems.training



TRAINER
Mr. Prem P Bharti
Technical Officer - Standard & Research
Skill Council for Green Jobs

TRAINER
Mr. Vamsi Krishna
Director - Institute of Solar Power Energy & Vocational Training

STEPS TO REGISTER & ENROL IN TRAINING

- 1 Visit www.sems.training
- 2 Click on **My Profile**
- 3 Sign Up & Login as Candidate
- 4 Go to **Home Page** & Enrol in training

Note: Check your email after enrolling in training to get your enrollment approved by SCGJ

Azadi Ka Amrit Mahotsav #Skill4NewIndia

SCGJ celebrates Azadi ka Amrit Mahotsav with a series of 75 webinars on Sustainable Development, Renewable Energy, and Waste Management

**Join us for the webinar on
Waste to Fuel**

LIVE STREAMING | 22nd OCTOBER 2021 | 12:00 PM

ZOOM
Meeting ID: 839 4527 0865
Passcode: SCGJ

FACEBOOK LIVE
www.facebook.com/
/Skillcouncilforgreenjobs/

Guest Speaker
Mr. Sameer Rege
Director
Mailhem Environment Pvt. Ltd.

Follow SCGJ on

IndiaSkills Track II Selection Test

Renewable Energy

Selection Test: ONLY for IndiaSkills Registered Candidates in RE Skill

Saturday, 16th October 2021
11:00 AM - 12:00 PM

Skill Council for Green Jobs
On a mission for another GOLD
WorldSkills Shanghai 2022

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Aswatha Narayana S
Gold Medalist, Water Technology
WorldSkills Kazan 2019

#IndiaKeSkillStar

IndiaSkills Track II Selection Test

Water Technology

Selection Test: ONLY for IndiaSkills Registered Candidates in Water Technology Skill

Wednesday, 20th October 2021
11:00 AM - 12:00 PM

Aswatha Narayana S
Gold Medalist, Water Technology
WorldSkills Kazan 2019

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India-Taiwan Online B2B Meetings- SCGJ meeting with Litemax Electronics, Taiwan for eco-friendly and sustainable products
30th September 2021

Panel Discussion on 'Era of Online Education: Management and Skill development' on 1st October, 2021



Editor of this issue

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Sarvesh is Senior Technical Officer at Skill Council for Green Jobs having more than 8 years of experience in Project Management, Skill Development, R&D and Data analysis. He is certified Project Management Professional(PMP) by Simplilearn. As Senior Technical Officer, he is working on skill development for green businesses in India, developing various National Occupational Standards in the field of renewable energy, Clean Cooking Solutions, Waste Water Management and pollution control. He is also associated with implementation of various CSR project in sustainability and entrepreneurship development.