

GREEN JOBS NEWSLETTER

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Atmanirbhar Bharat
The Road Ahead

5 Pillars of Self-Reliant India

- Economy**: Quantum jumps, not incremental changes
- Infra-structure**: One that represents modern India
- System**: Technology driven
- Demography**: Vibrant demography of the largest democracy
- Demand**: Full utilisation of power of demand and supply

Atmanirbhar Bharat Abhiyan

- Package of ₹ 20 lakh crores (about 10% of GDP*)
- Focus on Land, Labour, Liquidity and Laws
- To cater to labourers, middle class, cottage industry, MSMEs and industries among others

**including recent economic measures and RBI announcements*

Bold Reforms– Need of the Hour

- Supply Chain Reforms for Agriculture
- Rational Tax System
- Simple and Clear Laws
- Capable Human Resource
- Strong Financial System

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Green Jobs & Atmanirbhar Bharat



Chairman,
Skill Council for Green Jobs

Vision for SCGJ

LOOKING BACK

SCGJ was incorporated (pre-Paris Agreement) to catalyze growth in Green Businesses through skilling and entrepreneurship development, with operations commencing in FY 2016-17. In the initial 2 years, SCGJ focus was on sectors aligned with National Solar Mission & Swachh Bharat Abhiyan. Since last year, efforts were extended to other flagship programs of the Government, viz Jal Shakti Abhiyan, JI-VAN & SATAT, Zero Plastic Pollution, Sustainable Mobility, etc.

SCGJ accords prime focus to industry connect, for demand aggregation, definition of job roles & validation of NOS and QP's. SCGJ has, so far, developed 51 QPs along with Model Curriculum and Handbooks. It has established 540 training centers, across 24 states, along with 1810 trainers, 278 Assessors and 4.44 lakhs trainees have been certified by SCGJ.

SCGJ implemented the “Green Businesses” component of SMARTGRAM initiatives (focus on renewable energy interventions and skilling) which were taken up in 50 Villages in Haryana, adopted by former President, Hon'ble late Shri Pranab Mukherjee, with CSR funding support from IREDA & REC.

Team India got Gold Medal in “Water Technology” during the World Skills Competition held at Kazan, Russia in 2019 for which SCGJ was also felicitated by Hon'ble Minister, Skills Development and Entrepreneurship. The award in Water Technology coincided with the launch of Jal Shakti Abhiyan, which has paved way for significant traction in this critical sector.

Renewable Energy sector has been introduced as a skill for competition in the World Skill 2021 and SCGJ looks forward to active participation by its certified Trainees.

EVOLVING ROLE

SCGJ is now metamorphosing from primary role of “Skilling & Certification” to “Green Entrepreneurs Development” by implementing a range of activities under program mode. More than 90% of employment/ livelihoods in Green Businesses are created in MSME's and, hence, large number of livelihood opportunities, for SCGJ certified trainees, will be as Green Entrepreneurs, viz as consultants/ value added resellers/sub-contractors to large industry.

As illustration, in the Solar sector, Rooftop Solar & Solar IP Sets (under KUSUM scheme), offer the highest employment potential. To ensure adequate revenue streams, even in rural areas, SCGJ is upgrading its Suryamitra course to Suryamitra+, to enable “Green Entrepreneurs” undertake Business Development activities for other Green Businesses, eg micro grids, biogas plants, solar dryers & chillers, water treatment units, etc.

Similarly in Waste sector, the SCGJ Training programs linked to Swachh Bharat Abhiyan (urban) are being upgraded with added modules for organized “collection & aggregation” of Plastic Waste as well as Used Cooking Oil (for dispatch to approved processing units). Focus is also being given to Swachh Bharat Abhiyan (Rural) for farm waste management, with 4 QPs developed, viz Agri-residue Aggregator, Manure Aggregator, Biomass Depot Operator and Manager-Waste Management. These will act as a key stimulus for implementation of JI-VAN and SATAT programs under National Policy on Biofuels.

Under Jal Shakti Abhiyan, SCGJ has developed 2 QPs as well as Participant Handbook in Waste Water Treatment, which has been used for Training Common ETP operators in Delhi. SCGJ is also developing QPs for RPL of existing STP technicians in “Gated establishments”, to provide multi-trade skills in maintenance of Sewage Treatment Plants (STP's) as well as Rain Water Harvesting (RWH) units, thereby optimizing treated water re-use as well as rain water harvesting.

For PM Awas Yojana/Green Construction, SCGJ proposes to launch targeted training programs to meet skilled manpower requirement under PMAY, which incorporate new concepts of green buildings and sustainable building materials.

LOOKING AHEAD

During the past decade, there has been growing awareness, amongst Corporations, that beyond meeting aspirations of shareholders & employees, they have fundamental commitment to the community at large. This has led to significant growth in ESG investments, which opened up many opportunities for Green Businesses.

However, even larger impact has come from wide spread concerns of citizenry on environment and climate change issues, in OECD as well as Developing Economies. This has led to Policies at National level as well as UN level, such as UN SDG's and NDC's under Paris Agreement. Recognizing that achievement of SDG's & NDC's cannot be achieved through mandates but needs deep involvement of community and businesses, concept of Green Economy has evolved. Green Economy is defined as an economy that results in improved human well-being and social equity, while significantly reducing environmental and ecological risks.

In other words, Green Economy involves embedding social, environmental, and ecological dimensions into business plans and national programs.

This led to “Green New Deal” in USA as well as “European Green Deal”. Programs which involve trillions of dollars investments on programs for Decarbonization & Resource Efficiency along with Clean Air & Water, Forest cover & Biodiversity. These programs are intended to catalyse significant economic growth and jobs creation within the implementing nations. To ensure level playing field to local Industry, regarding sustainability, the “European Green Deal” envisages a Carbon Border Adjustment Mechanism on imports.

Indian Prime Minister has repeatedly articulated India's commitment to “Low Carbon, Inclusive & Sustainable Growth path”. These are also captured in various Missions as well as in the “Atmanirbhar” vision, supported by Production Linked Incentives coupled with Phased Manufacturing Programs. These will attract investments in Solar & Wind Power Equipment, Energy Storage, EV's, Advanced Biofuels, etc, but will only address supply side issues. To generate demand, there will be need to create enabling eco-system for Sustainable Energy/ Mobility. In addition, to realize the full potential of Green Economy, there is need to focus on sectors of Waste

management, Water management, Green Buildings, Sustainable Agriculture/ Animal Husbandry, etc. To catalyse growth in these sectors, largely under MSME's, it's imperative to establish policies and systems, which support “decentralized architecture” for production and consumption of goods & services, especially in rural areas. SCGJ, drawing upon its experiences in the “SMARTGRAM” initiative, intends adopting select Districts, where Industry Members can showcase best practices, thereby enable “Institutionalize Green Economy” and catalyse large scale replication.

ACKNOWLEDGEMENT

SCGJ has achieved its impressive growth due to the unstinted support from its GC members and highly motivated, young, team, inspiringly led by the CEO.

In a world which is going through pandemic induced health & economic crises as well as disruption in business models, SCGJ needs even closer collaboration with its GC & Advisory Board Members, as well as MSME Members and other stakeholder groups. I have no doubt that this will be forthcoming and, in post Covid era, SCGJ will emerge an even stronger entity, expanding its footprint to global markets, especially in collaboration with ISA Members.

Mr. K.Krishan
Chairman

ONLINE SOLAR TRAINING FOR ISA MEMBER COUNTRIES BY SCGJ

Online Training program for Bankers and Solar Entrepreneurs of ISA member countries

About 5 years back, on 30th November, 2015, on the side lines of COP 21 in Paris, Hon’ble Prime Minister of India and the then President of France, jointly launched the International Solar Alliance (ISA), a treaty-based intergovernmental organization.

ISA has been conceived as an action-oriented, member-driven, collaborative platform for increased deployment of solar energy technologies to enhance energy security and sustainable development, and to improve access to energy in developing member countries.

Since its inception, the ISA has travelled a long way. the ISA Framework Agreement has been signed by 86 countries, with 67 having also deposited instruments of ratification.

The ISA has a number of programmes to promote Solar Energy in its member countries. On 27th April 2020 ISA, has launched Eight new initiatives.

In order to mitigate the gap with respect to policy, regulatory, legal, financial and technical aspects in ISA Member Countries, the ISA has launched the initiative on conducting Training program for Bankers and Solar Entrepreneurs. The program is focused on conducting virtual training sessions for bankers on technical feasibility, due diligence, risk identification and mitigation, credit appraisal and solar insurance amongst others. It was decided by ISA that the programme will be initiated with training to 500 candidates from Banks.

the online trainings for 500 Bankers and officers in the solar sector for ISA member countries would be organized jointly by SCGJ and IREDA. SCGJ has so far delivered online training to 142 candidates from 15 countries. These training programmes have been delivered by SCGJ certified master trainers and officers of IREDA and SBI. It is a 5 days online training program (10 structured lectures of 1.5 hrs each). So far , 3 batches have been conducted including one in French language.

Country wise details of online training

Batch I : 21 st -25 th July, 2020		
Total Number of participants :42		
S.No	Country	Number of participants
1	Sri Lanka	25
2	Kingdom of Tonga	5
3	Fiji	12
(Batch II : 10 th -14 th August, 2020		
Total Number of participants : 50		
S.No	Country	Number of participants
1	Nigeria	17
2	Gambia	6
3	Namibia	3
4	Mozambique	3
5	Somalia	7
6	Sudan	9
7	Tanzania	5
Batch III: 17 th – 21 st August, 2020)		
Total Number of participants : 50 (Delivered in Franch)		
S.No	Country	Number of participants
1	Benin	10
2	Comoros	6
3	Togo	10
4	Senegal	14
5	Djibouti	10

Considering the experience of SCGJ in providing structured training to bankers, it was decided by ISA that



Dr. Praveen Saxena
Chief Executive Officer

SKILLING OF WOMEN IN RENEWABLES DURING COVID-19

Gender equality and empowerment of women through equal access to education, skill development, and employment opportunities will ensure end of all forms of discrimination against women and meet the goals of Sustainable Development. Government of India has made consistent efforts to implement programmes in gender sensitization and also for skilling women for generating employment opportunities. The prime minister's **Beti Bachao Beti Padhao initiative** aims at equal opportunity and education for girls in our country and specific interventions on female employment advance India's commitment to gender equality. In order to ensure a safe work environment, Government of India has also enacted in 2013 an Act for Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 which provides protection against such harassments and also for prevention and redressal of complaints. Thus through these consistent efforts, the condition of women in India has improved, but there is a need to work hard for further improvement.

Women today constitute only 13.76% of the total entrepreneurs, i.e., 8.05 million out of the 58.5 million entrepreneurs. Women need to be brought to the forefront by addressing and challenging gender norms at a nascent stage of social development, so that we develop a society where women and girls feel safe and valued. A continual effort is being put in this direction of creating a more sensitive, strong, rational and progressive society.

The Ministry of Skill Development and Entrepreneurship (MSDE) has been focusing on programmes to increase the participation of women in skill development initiatives so as to empower them and also apprise them about the women's right to work in a safe and secure environment. Skill development programmes and skill eco system are now extending to the entire country including remote and rural areas. This is leading to the necessity of addressing the issue of skilling and training of women in both traditional and non-traditional roles to ensure wider participation of women in different sectors of employment. Recently the Ministry has launched the **'Skills Acquisition for Livelihood Promotion' (SANKALP) programme**, which is a World Bank loan assisted project and aligned with the overall objectives of the National Skill Development Mission (NSDM). The project focuses on transforming the overall skilling ecosystem of India covering both Central and State level agencies for improved outcomes for women participation. Pilot projects will be implemented to increase participation of women in skill development and also apprise them about the women's right to work in a safe and secure environment.

Skill Council for Green Jobs (SCGJ) set up under the Ministry of Skill Development and Entrepreneurship (MSDE) is working in the domain of capacity building through skilling and training for green businesses and cutting edge climate friendly technologies. Skill Council for Green Jobs (SCGJ) is also focusing on "Entrepreneurship development for Sustainable Development" to generate revenue for long term sustainability. SCGJ also aims to support women in India to learn marketable skills and connect with income opportunities so as to make them economically self-sufficient.



As per the report of International Labour Organization (ILO) 2018, more than 300,000 workers will be employed in the solar and wind energy sectors to meet this target. In the renewable energy sector, the share of women in most workplaces is significantly less especially in the technical, managerial and policy making positions. As per the survey by IRENA report 'Renewable Energy: A Gender Perspective-2019' women's participation is much lower in Science, Technology, Mathematics (STEM) jobs than in administration.

SKILLING OF WOMEN IN RENEWABLES DURING COVID-19

Limited presence of women is due to lack of access to career information, relevant networks and employment entry points. Women also face barrier to retention in jobs and career advancement due to balancing work and family, mobility requirements and supportive environment in the form of flexible work hours, family-friendly measures, mentoring and networking, training opportunities, and gender equity targets.

Hence creation of a skilled women will not only provide them opportunities for creation of livelihoods but will also contribute to the national objective and environmental conservation and sustainability. SCGJ has developed Qualifications Packs (QPs) for training in various job roles in Solar energy, clean cooking and waste management. Women have already been trained as Solar Lighting technician, Solar PV Project Helper, Portable Improved Cookstove Sales and Maintenance Executive and Recyclable Waste Collector and Segregators.



After the training, the candidates trained as Solar Lighting Technician would assemble, test and repair different types of solar photovoltaic (SPV) home lighting systems and street lights, Solar PV Project Helper would assist in the activities related to erection, commissioning and maintenance of solar PV power plants and installation and maintenance of off grid solar systems and Portable Improved Cookstove Sales and Maintenance Executive would be able to market, sell and provide aftersales service of clean cookstoves. **“Solar PV home lighting system assembly unit”**, run by women entrepreneur could also be created to meet long term requirement of the cluster. As a Recyclable Waste Collector and Segregator, the candidate would be responsible for collection and proper segregation of Recyclable waste. She 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.

All the above activities are undertaken by SCGJ trained and certified entrepreneur and workforce. It would thus become a net revenue generating activity for the society as well as the entrepreneur. This offers very good opportunity of involving women and they can be **developed as entrepreneurs for promoting RE products**, inculcating culture for regular use of systems, their efficient operation and regular maintenance. This can be a sustainable livelihood for them with an assured market in and around renewable energy products.



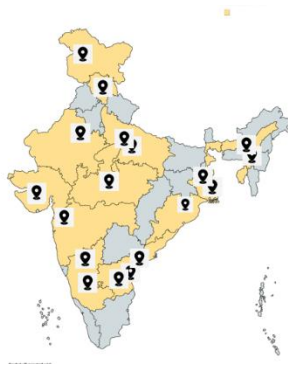
As COVID 19 continues its deadly spread, lockdowns and the resulting supply chain disruptions have significantly impacted the economy globally, especially the micro and small enterprises, there is need for restarting livelihoods and earnings through equipping new business skills.

Thus Skill Council for Green Jobs, is providing skilling and training in Green Jobs sector to women so as to create gainful employment and entrepreneurship. **However there are issues of mobilization of women candidates social acceptance of their job roles mobility and access to market places and finance** which need to be resolved so that we eradicate poverty and generate livelihoods for women. It is hoped that implementation of different pilot projects will increase participation of women in skill development, apprise them about the women's right to work in a safe and secure environment and also facilitate their social and economic empowerment.



Dr. (Mrs.) Parveen Dhamija
Advisor

INDIAN ROOFTOP PV INSTALLERS SKILLING AND EMPLOYMENT



SCGJ is a consortium partner in a GIZ funded project titled **“Indian Rooftop PV Installers Skilling and Employment (IRISE)”** that aims to implement capacity building activities for improving the market development and quality of rooftop PV systems in India. One of the key objectives of the project is to improve PV rooftop installation quality through Up-skilling Indian solar installers (certified Suryamitra) and other stakeholders including EPC companies etc through Train-the-Trainers and hands-on trainings, revision of curricula, trainings of e-mobility and showcasing the German dual VET apprenticeship experience with study tours. .

The core objective of the project is to upskill solar PV installers (especially “Suryamitra”) using PV Port as a benchmark and to enhance their employability. Designed by GIZ, PV Port and Store is a standardised portable “plug n play” 2KWp solar rooftop system suitable for residential and commercial consumers which will be used as a benchmark system for installation trainings under the project. To address the challenges involved with small scale grid connected rooftop solar power plants (<3KW capacity), GIZ proposed the concept of a new type of rooftop solar power plant called “PV Port + Store”.

The “PV Port” is a standardized plug-n-play + grid-interactive photovoltaic system with battery storage, designed for 100% self-consumption. It delivers 2kW peak power and have a storage capacity of 2-4 kWh, using LiFePO4 or lead-acid based storage.

Key characteristics:

Grid Interaction: the PV Port is synchronized with the grid but is not exporting the surplus power into it. That means generated solar energy is used for 100% self-consumption. The operation of the PV Port is in parallel to the public grid, it also functions in uninterruptible power supply (UPS) mode.

Plug-n-play:

The PV-Port AC output is directly plugged into a socket at household circuit level which allows the homeowner to install and connect the PV-Port by himself. Installation may take as little as 3 hours and as no export of power is done, its installation does not require permission or approval by the distribution utilities, unlike the case of grid interactive system.

Under the Project, SCGJ will support RENAC, a Berlin based leading training provider, which is also the lead project partner on delivering technical content related and organizational services for implementing a range of trainings and workshops. Upskilling selected stakeholders on rooftop installation, including PV Port through IRISE project has its origins through another GIZ funded project “Trainings on Rooftop PV in India (TROPHI)” where multiple trainings were provided to discom staff on grid integration along with Suryamitra TOTs. GIZ while recognizing the potential of solar rooftop in creating additional employment across the country and the importance of sharing best practices around skilling and capacity building, formulated this project while building on its prior experience.

One of the key focus of IRISE project is to upskill 1500 certified Suryamitra in solar electric installation, operation and maintenance as well as marketing and sales of small residential systems using PV Port as the benchmark. Tentatively in early 2021, up to 60 Upskilling trainings of certified suryamitra (10 days each in two batches) are scheduled to be undertaken by 30 training partners located across 13 states. In this context, 30 TPs have formally onboarded with the project and committed to deliver a range of trainings. The project will also train up to 64 trainers nominated by the TPs through 4 TOTs (5 days each) to be undertaken at multiple locations tentatively during Oct/Nov 2020.

INDIAN ROOFTOP PV INSTALLERS SKILLING AND EMPLOYMENT

To undertake 60 upskilling trainings, project will provide financial and technical support to the shortlisted training partners. A PV Port system with lead acid storage along with selected equipment shall also be provided to the concerned TPs to deliver upskilling trainings. During ToTs, Trainers will be trained on all aspects of PV Port including installation, commissioning, technical troubleshooting, marketing and entrepreneurship, etc. As the project was conceptualized by early 2020 and the broader contours of implementation plan was made by then, typically all the trainings were largely envisaged as regular face to face trainings, with maximum a batch of 25 candidates. However, now with various restrictions imposed by the Government with COVID 19 pandemic, risks for training delivery besides other project activities is getting reassessed and efforts are being made to have a mix of both online/virtual training or e-learnings along with face to face trainings. Typically, in solar trainings some aspects like policy, regulations, project finance, marketing, entrepreneurship etc.

can be effectively taught through online trainings. However, to properly understand any technical aspects on modules like site survey, installation, commissioning, maintenance etc, requires a lot of hands on approach and so virtual trainings might not be quite effective. While factoring in this limitation in training delivery, the project team is also in process of developing suitable strategies and creating content which could effectively be utilized in future trainings within the project timeline.

So far SCGJ has successfully carried out a range of activities in the project, including

- **Formalize the onboarding of 30 TPs comprising of both Government and private training institutions across 13 states**
- **Identify selected equipment (make and models) to be provided to TPs and place order for procurement**
- **Include PV Port related technology and entrepreneurial aspects in Suryamitra QP through rationalization process.**

In addition to delivering upskilling trainings covering all aspects on Solar PV rooftop system, Project also has a key focus through various modules on targeted trainings for selected EPC players, concerned discom staff for inspecting solar installations and E-Mobility training including on solar based charging system for e vehicles. SCGJ is not directly involved with performing all capacity building activities for other stakeholders except suryamitras. However, review of all customized training content is a key activity for SCGJ and so it is expected that all such content development will further support SCGJ training repository across the solar domain.

The pandemic-triggered lockdowns have had a major impact on employment in many sectors of the Indian economy. Within the energy sector, renewables jobs have been affected as well. Due to lockdowns, all skilling and entrepreneurship development activities have also been disrupted since many months, though many training partners have gradually switched to virtual trainings to remain relevant in the business. SEMS, the recently launched e-learning platform by SCGJ is also a key step in undertaking market mode trainings through online mode. Much like organizations are prioritizing online trainings now, to suit the changing needs of the time, re-skilling the workforce must also be given more priority in current times. Practical focus on upskilling to address aspirations and realignment of candidates in current economic climate is necessary as only suitably equipped workforce ready to take on the new normal will ensure minimum disruption.

INDIAN ROOFTOP PV INSTALLERS SKILLING AND EMPLOYMENT

In that context, IRISE project due to its core focus on upskilling targeted workforce is quite relevant to address the skilling and employment challenges in current times. Experience gained with IRISE shall also further support SCGJ in

- Developing training and education programmes in alignment with industry needs across concerned domains to **minimize skills gaps**
- Evaluation of the reskilling needs of workers to ensure they acquire **new skills** as required by the evolving industry
- Support the **integration of renewable energy** and climate change topics into all-level educational curricula and provide support to enhance quality of training by technical and vocational institutions



Mr. Deepak Rai
Head - Standard & Research

VIRTUAL DRAWING COMPETITION

Skill Council for Green Jobs (SCGJ) organized **first virtual drawing competition** held on June 5th(World Environment Day) covering them in three groups:

- Classes 6th to 8th
- Classes 9th & 10th
- Classes 11th & 12th

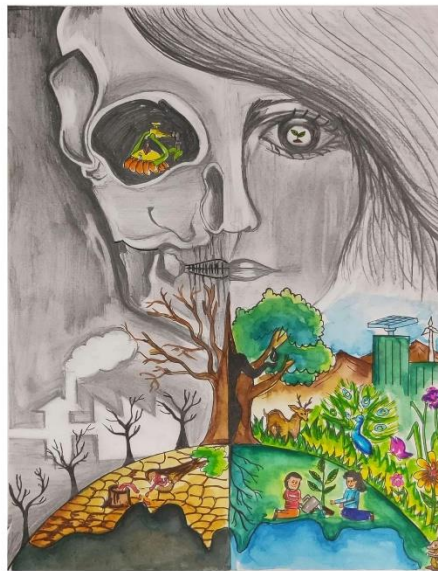
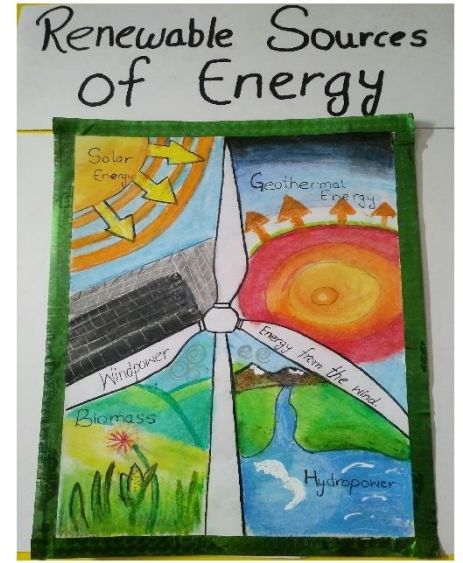
A list of 6 topics were given to the candidates to enumerate their skills by drawing on sustainable goals:

- ✓ Celebrating Biodiversity
- ✓ Circular Economy for better environment
- ✓ Conservation of Water
- ✓ Environment friendly Smart Cities
- ✓ Pedestrian Safety and Sustainable Transportation
- ✓ Use of Renewable sources of Energy

A total of **1202 candidates** participated in the virtual drawing competition. There was a large participation from remote areas.

52 winners were selected.

SCGJ applauds these innovative minds.



Ms. Sangeeta Patra
Head - Marketing & Partnerships

SCGJ THROUGH DATA as on 10th Sept 2020

[Trainings on Solar Job Roles]

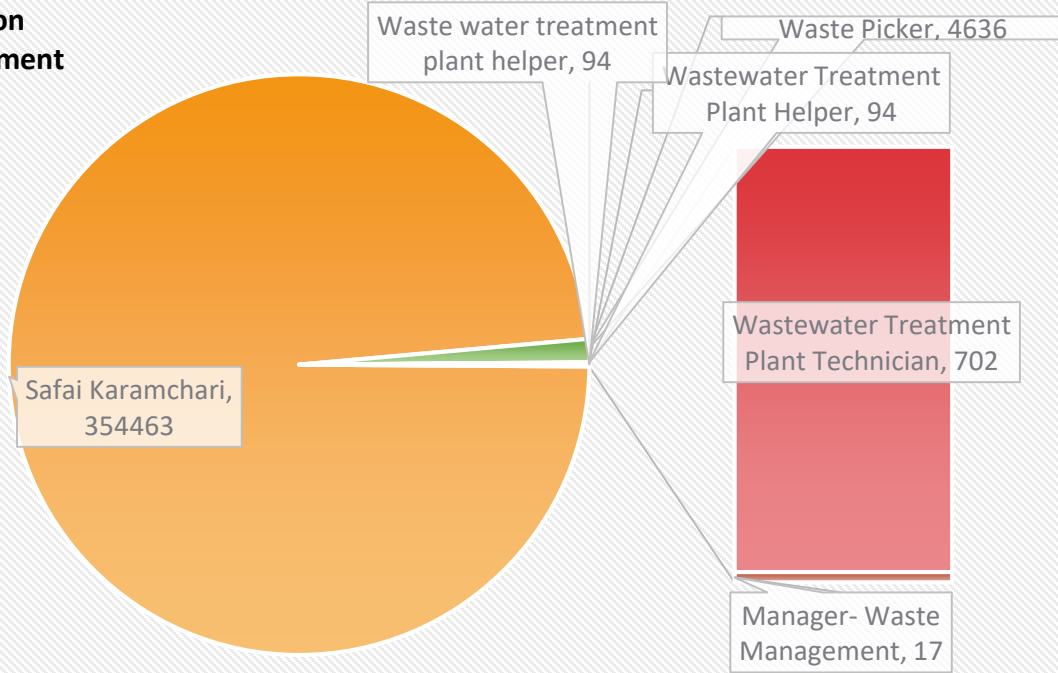
	2016-17	2017-18	2018-19	2019-20	2020-21	TOTAL
Solar PV Installer - Suryamitra	2,789	17,385	21,724	19,531	5,563	66,992
Solar PV Installer - Electrical	171	2,260	4,166	3,570	342	10,509
Solar Pv Installer - Civil		516	518	123		1,157
Solar Lighting Technician Options: Home Lighting System Street Lights			1,094	61		1,155
Rooftop Solar Photovoltaic Entrepreneur		392	616	85	29	1,122
Rooftop Solar Grid Engineer		439	386	194	100	1,119
Solar electric System Installer & Service Provider				473	253	726
Solar Proposal Evaluation Specialist		20	315			335
Solar PV Project Helper			68	40	142	250
Solar PV Maintenance Technician - Electrical (Ground Mount)			103	53		156
Solar PV O&M Engineer		9	61			70
Solar Domestic Water Heater Technician		23	40			63
Solar Off Grid Entrepreneur			40			40
Solar PV Business Development Executive			40			40
Solar PV Engineer			40			40
Solar PV Helper			68	40	142	250
Solar PV System Installation Engineer			27			27
						84,051

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SCGJ THROUGH DATA as on 10th Sept 2020

Waste Management Job Roles

Total Trainees on Waste Management



Trainings on Waste Management Job Roles

2017-18 2018-19 2019-20 2020-21 TOTAL

	2017-18	2018-19	2019-20	2020-21	TOTAL
Safai Karamchari	1,770	18,891	266,496	67,306	354,463
Wastewater Treatment Plant Technician	320	232	150		702
Waste Picker		266	3,755	615	4,636
Wastewater Treatment Plant Helper		94			94
Manager- Waste Management		17			17

Created with Datawrapper

AFFILIATION OF ASSESSMENT AGENCIES 2019-20

NSDC issued guidelines for Affiliation of Assessment Agencies. Two RFPs one in February 2019 and another in September 2019 were floated by SCGJ for affiliation of Assessment Agencies and the response was evaluated as per the evaluation criteria issued by NSDC. Presentation was made by each respondent and finally following Assessment Agencies have been empaneled by SCGJ.

AGENCIES EMPANELLED AGAINST FEB 2019

S. No.	Name of the Assessment Agency
1.	Ace Assessments Pvt. Ltd.
2.	IRIS Corporate Solutions Pvt. Ltd.
3.	Diversified Business Solutions Pvt. Ltd.
4.	Trendsetters Skill Assessors Pvt. Ltd.
5.	Palmary Project & Services Pvt. Ltd.
6.	Virtual Saas
7.	Khwaspuria Advisory Pvt. Ltd.
8.	Aon (CoCubes) Technologies Pvt. Ltd.
9.	Indore Skill Assessment Services Pvt. Ltd.
10.	SP Institute of Workforce Development Pvt. Ltd.
11.	Bluestone Solutions Pvt. Ltd.
12.	Bhavishya Uday Shiksha Evam Baal Chetna Samiti
13.	Udichi
14.	Onecrew Services Pvt. Ltd.
15.	Vedokt Skill & Consulting Pvt. Ltd.
16.	Eduvantage Pvt. Ltd.

AGENCIES EMPANELLED AGAINST SEPT 2019

S.No.	Name of the Assessment Agency
1.	Confederation of Indian Industry
2.	TAG Assessors Guild Pvt. Ltd.
3.	MIRAMS Training Services (India) Pvt. Ltd.
4.	Demorgia Consulting Services Pvt. Ltd.
5.	India Skills Pvt. Ltd.
6.	Skill Mantra Edu-tech Consulting India Pvt. Ltd.
7.	Virtual Education Trust
8.	Ginger Web Pvt. Ltd.
9.	Induslynk Training Services Pvt. Ltd. (Mettl)
10.	Premia (Punia)Consultancy LLP
11.	Independent Qualitative Assessors Guild Pvt. Ltd. (IQAG)
12.	Prima Competencies Pvt. Ltd.



Mr. P.B.Singh
Technical Officer

SKILL TRAINING IN WASTEWATER TREATMENT PLANT

In the National Capital of India, New Delhi, there are several Industrial clusters having different types of Industrial units such as Textile, Electroplating, Automotive, Oil processing and many more. The industrial cluster of New Delhi also houses various Community centers, Banquet Halls that operate in their region. These Industries discharge hazardous effluents that need to be treated to desired permissible levels before they are being discharged to the mainstream. However, many of these Industries do not have requisite space to install Effluent Treatment Plants and solely rely on DSIIDC's Effluent Treatment Plants (CETPs) which are managed by the CETP Society. Workers in the wastewater treatment sector are responsible for the day-to-day operation, maintenance, trouble-shooting and handling of special problems of wastewater treatment plants. Occupations can include Plant Operator, Senior Operator, Water Resources Specialist, Maintenance Operator, etc in both municipal and private facilities. There is also exposure to hazards related to work in confined spaces.

The CETP societies often lack skilled workforce which is involved in the operation and maintenance of these plants resulting in various hazards such as, Activity Hazards, Chemical Hazards, Accidental Hazards, Fire Hazards, Electrical Hazards & Biological Hazards.

Keeping in view of skilled workforce requirement, SCGJ and 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. Based on study on consideration of immediate need of trained workforce for the sector, SCGJ has developed Qualifications Packs of **Wastewater Treatment Plant Technician and Wastewater Treatment Plant Helper**.

QUALIFICATION PACK- Wastewater Treatment Plant Technician		
NSQF Level	4	Description
Course Duration/ Training Hours	200	After the training, the candidate would be suitable to work as Wastewater Treatment Plant Technician. S/He would specialize in operation & maintenance of the Industrial and Housing Societies Wastewater Treatment Plants.
Trainee Qualification	12th Pass, 10th Pass + ITI/Diploma, 8th pass + 4 years of experience as Wastewater Treatment Plant Helper	
Entry Age (years)	Minimum age: 18	S/He will be trained on and will be able to: <ul style="list-style-type: none"> • Operate the Wastewater Treatment Plant • Monitor and Maintain Wastewater Treatment Plant • Work Safety at Wastewater Treatment Plant S/He would be able to operate Wastewater Treatment Plant and other related equipment. S/He would be able to perform the operation and cleaning of different screens, valves in a Wastewater Treatment Plant and charge the slurry tank. S/He would be able to do add desired quantity of chemicals and microbes to treat water. S/He would also facilitate the calibration of process control equipment as needed.
Trainer Qualification & Experience	ITI /Diploma + 3 years of relevant industry experience or B.Tech. + 2 Years of relevant industry experience or Certified Wastewater Treatment Plant technician + 2 years of relevant experience (education qualification can be relaxed in case of extraordinary relevant experience)	

SKILL TRAINING IN WASTEWATER TREATMENT PLANT

Acknowledging that demand for qualified skilled staff in the Water and Wastewater Industry is high, SCGJ organized a Focus Group Discussion (FGD) on 21st May, 2019 to discuss various aspects and need of skill and capacity building in the industrial wastewater treatment processes. Experts from industries, institutions and Government participated in the Group discussion to deliberate for a road map for skilling and capacity building in the Industrial Wastewater treatment. It was decided that specialized training for waste water treatment be started both “on the field” and “in class rooms”. “On the job skilling” be encouraged and curriculum be developed and skilling be carried out.

In line with FGD, first Skill up-gradation Training for 23 Technicians/ Operators conducted at CETP, Okhla New Delhi on 26th-28th September 2019. These Technicians/Operators were from CETP, Okhla, Multan Automobile, Kumar Automobile, Symmetrix Print Pvt. Ltd., Azure Hospitality, Gopala Fresh Produce Pvt. Ltd., Hi-print Corporation, Crown Plaza, Oriental Automobile, Saxena Art Printers, Kamal Sales Publishers, GS Oberoi Structure Pvt. Ltd, Lipeescan, Baldev Industries and Commonwealth Tech Trade at CETP Okhla.



Focus Group Discussion



Classroom Training at CETP Okhla



Plant Visit at CETP Okhla

SKILL TRAINING IN WASTEWATER TREATMENT PLANT

The high demand of skills in Wastewater encouraged by NSDC and Ministry of Skill Development and Entrepreneurship (MSDE). With the approval of Ministry, SCGJ conducted RPL Type 2 scheme targeting 500 Technicians/Operators at CETP/ETP/STPs. Against the target SCGJ conducted training of 118 wastewater treatment plant technicians in different Wastewater treatment plants of Delhi, namely Mayapuri, Bawana, Badli and G.T.Karnal Road CETPs. These trainings were conducted in the month of February and March 2020 by 10 Skill India certified Trainers. These Trainers were from the National Productivity Council (NPC) and industry itself and registered under Takshashila portal.

Skill trainings were also planned for CETPs in Gujarat and STPs in Haridwar which could not be conducted due to the emergence of the Covid 19 pandemic.



Training of Trainers (ToT) at SCGJ Office



Training of Technicians at CETPs

Mr. Sarvesh Pratap Mall
Senior Technical Officer

PREVENTION OF HAZARDOUS CLEANING OF SEWERS AND TANKS

On the eve of the **Mahatma Gandhi's birth anniversary** Skill Council for Green Jobs (SCGJ) along with the National Safai Karamchari Finance & Development Corporation (NSKFDC) launch a mega nationwide event in the form of **One Day Workshop on Prevention of Hazardous Cleaning Sewers and Tanks**, on 02nd October 2018 at East Delhi Municipal Corporation Office.

Dr. Praveen Saxena, (CEO-SCGJ) has launched this mega event with the kind permission of the Union Minister for Social Justice and Empowerment, Shri Thawarchand Gehlot. The MD of NSKFDC Mr. K. Narayan and the EDMC Mayor, Mr. Bipin Bihari Singh were also present on the event. Mr. Singh has assured that the East Delhi Municipal Corporation will take all necessary measures for the safeguards of their 'Safai Karamcharis' (sanitation workers). Each year more than 1000's of manual scavenger's dies or get serious diseases while operating the septic tanks and cleaning the manholes.

SCGJ has decided to take this challenge and started One Day Workshop on Prevention of Hazardous Cleaning Sewers and Tanks, with the help of the NSKFDC and Municipal Corporation and other local bodies.

The workshop highlighted the **Manual Scavengers Rehabilitation Act 2013**. This Act came into force in December 2013. It imposed certain time bound commitments by the local authorities (municipal bodies, cantonment boards and railway authorities).

It also highlighted the punishments for overseeing these conditions such as

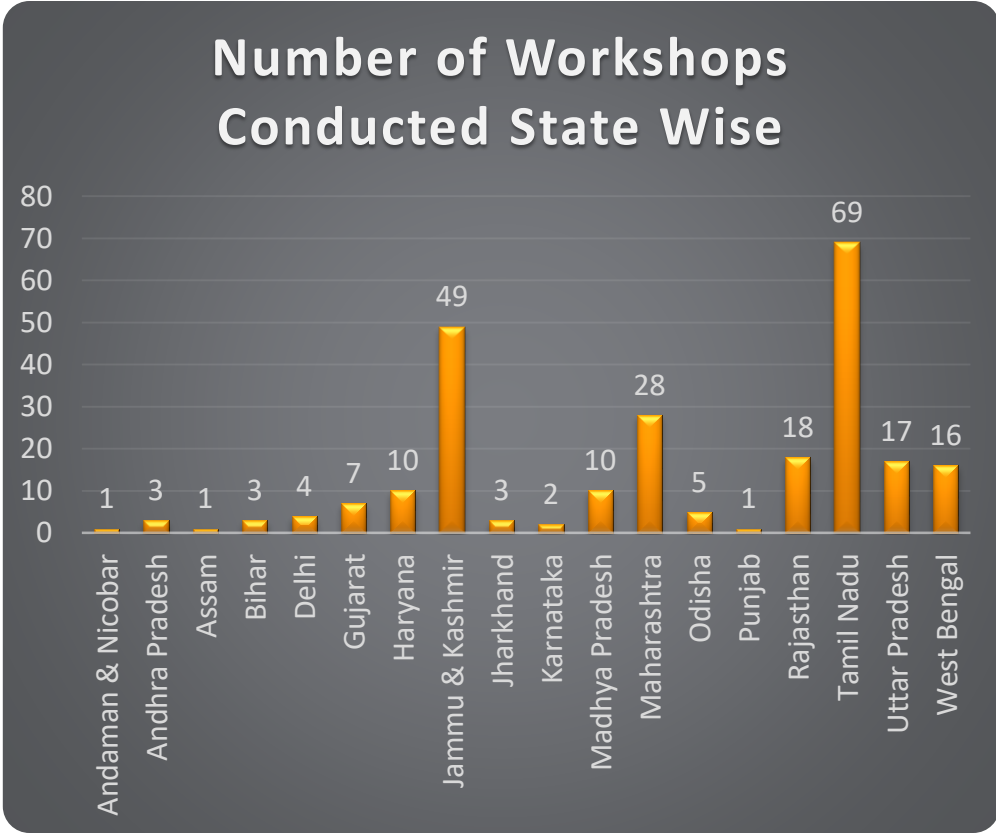
Punishment for 1st Time

- Fine Upto 2 years of Jail
- Or Fine Upto Rs. 2 lakh
- Or Both

Punishment for 2nd Time:

- Fine upto Five Years of Jail
- Or Fine upto Rs.5 lakh
- Or Both

In a case filed by Safai Karamchari Andolan, Hon'ble Supreme Court of India has ordered to pay a compensation of Rs. 10 lakh to dependents of sanitation workers died while cleaning sewers/septic tanks since 1993



PREVENTION OF HAZARDOUS CLEANING OF SEWERS AND TANKS

The workshops was focused on following modules

- Introduction of the Act
- PPT showing the Punishments and the Compensation in case of the death or any misshaping of the Manual Scavenger/s.
- Equipment’s and the safety kits mandatory for the workers.
- Various policies and the loan schemes launched by NSKFDC, other Government and NGO’s for upliftment of the dependent of the manual scavengers.
- Short heart touching movie on the life of the Manual scavengers.

The main attraction of this workshop was the Short Movie on the life threatening situation faced by these Manual scavengers and how they and their family members are treated by the society. It highlighted the negligence of the various Municipalities and other Contactors causes the deaths of many manual scavengers/workers.

SCGJ has successfully completed 247 workshops which was sanction by NSKFDC for one year on PAN India basis.

Workshop focused deep area and highly terrorist effected areas of Jammu Kashmir or the highly posh areas of Delhi-Maharashtra, highly temperate zone of Rajasthan, main land of the India in Bhopal, Islands of Andaman & Nicobar Islands, low literate state of Naxalite areas, highly educated state of Tamil Nadu.

SCGJ has successfully completed the workshops in less than the stipulated time allotted to them by NSKFDC. In this phase SCGJ has conducted **247 Workshops in 18 States and in 243 Municipalities.**

With growing popularity of the workshops and the deep impact of the Short Movie, many of the Municipalities and other Local Bodies shown interest and directly approached to SCGJ for conducting such workshops. Many of the Commissioners and the Higher Authorizes Officers have also took the pledge to work for the welfare and security of such workers and also assured for the safety gears for the equipment’s for the workers.

At start SCGJ faced many of the challenges for conducting such activities but later on Local Bodies themselves invited SCGJ for conducting such workshops.

SCGJ has completed its targets allocated by the NSKFDC well before the time.

State	Number of Workshops conducted
Andaman & Nicobar	1
Andhra Pradesh	3
Assam	1
Bihar	3
Delhi	4
Gujarat	7
Haryana	10
Jammu & Kashmir	49
Jharkhand	3
Karnataka	2
Madhya Pradesh	10
Maharashtra	28
Odisha	5
Punjab	1
Rajasthan	18
Tamil Nadu	69
Uttar Pradesh	17
West Bengal	16
Grand Total	247



Short heart touching movie on the life of the Manual scavengers created by SCGJ.

<https://www.youtube.com/watch?v=IHcq8W2zsCE>



Mr. Ankur Sood
Asst. Manager, SCGJ

NEW QP ADDITION

Disposal and recycling of plastic bags have created havoc and a threat to the environment. Suitable solution to come out of this difficulty is to replace, wherever possible, plastic bags with other bio-degradable materials such as paper bags, cotton bags, jute bags etc. This is not only environmental friendly, economical but durable as well. The use of paper bags in the food and beverage industry has been rising since past years. The growing inclination towards the adoption of paper bags has made this segment highly lucrative. It is estimated that global paper bag market is growing at a Compound **Annual Growth Rate of 4.4% in between 2019 to 2025**(Zion market research). The market size of the paper packaging industry in India has increased tremendously with an annual growth rate of about 11%.

With the increasing demand of paper bags and workforce in entrepreneurship, paper rope twisting, screen & computational printing and manufacturing, SCGJ has developed Qualification Packs (QPs) for skill development on Technician-Paper Bag Manufacturing and Paper Bag Maker

Technician- Paper Bag Manufacturing		
NSQF Level	3	Description
Course Duration/ Training Hours	225	After the training, the candidate would suitable to work as Technician - Paper Bag Manufacturing. S/He has the competence to cut, crease, fold, paste and print the paper bag from different types of paper including recycled and waste paper using appropriate equipment. S/He will be trained on paper bag manufacturing and will be able to : <ul style="list-style-type: none"> • Check machines, tools and equipment for paper bag manufacturing • Carry out paper cutting and creasing • Make eyelets in paper bag • Paste, print and dispatch paper Bag • Maintain basic health and workplace safety • Improve communication and soft skills which include etiquette manner, perception etc. S/He would make eyelets and fix the handle or paste paper twisted rope handle to manufacture the final product. Suitably pack the finished product for dispatch to the customer.
Trainee Qualification	Ability to read and write	
Entry Age (years)	Minimum age: 18	
Trainer Qualification & Experience	10th pass with three years of experience in relevant waste management organization or similar occupation	

Paper Bag Maker		
NSQF Level	5	Description
Course Duration/ Training Hours	130	After the training, the candidate would suitable to work as Paper Bag Maker. S/He has the competence to carry out market analysis and sets up a production unit for manufacturing paper bags from paper/recycled paper. She/He will be trained on developing enterprise for paper bag manufacturing unit and will be able to : <ul style="list-style-type: none"> • Carry out market analysis for raw material procurement and assess demand of paper bag • Identify key suppliers of raw material for paper bag • Prepare a business plan for marketing a paper bag • Liaise with government authorities/local authorities, corporation etc. for smooth conduct of business operations • Improve Entrepreneurship skills • Acquire requisite infrastructure/land • Set up and manage paper bag manufacturing plant • Manage human resource • Ensure health and safety at workplace • Improve communication and soft skills which include etiquette manner, perception etc. S/he would source and use different kind of papers as per client requirement and sell paper bags through different channels. S/he ensures compliance with statutory requirements for setting up of the production unit. S/he is also responsible for overall management, recruitment and sustenance of the business
Trainee Qualification	8th Pass with 2 Years ITI program or 10th Class or Certified Paper Bag Technician with 3-5 Years of experience	
Entry Age (years)	Minimum age: 18	
Trainer Qualification & Experience	10th pass with three years of experience in Paper Bag Manufacturing	

ONLINE ASSESSMENTS DURING COVID-19

The sudden onset of the COVID-19 global health crisis disrupted work patterns worldwide. One of the areas affected has been Skill Development Trainings and Assessments. The mandate to move candidates from Training Centres to their homes has made it impossible to provide in-person, classroom-based skills training and carry out candidate assessments at Training Centres.

The effects of the pandemic look to be wide-ranging and long-lasting. Many Training organizations and Assessment Agencies have had to implement or expand Online business models to compensate for lockdown-related restrictions on doing business in person. This has created an increased demand for Online skills training and Online Skills Assessments.

As the Lockdown policies were implemented to slow the spread of COVID-19, Training organizations and Assessment Agencies that had previously offered physical classroom skills training and Assessments to the candidates have moved the Trainings and Assessments Online.

To respond to this challenge, SCGJ has started Online Assessments of candidates through its empaneled Assessment Agencies using their technology online platform to conduct pending and future assessments.

With the advancements in technology & AI, it is possible now to administer the complete assessments remotely using technology. Candidates while sitting at home can appear for the Theory and Practical assessments.

Some features of Online Assessment Platform are listed below:

- A link is shared with the candidate on his email id. The assessment can be **conducted on laptop/ mobile phone/ tablet**.
- These assessments are bilingual. The assessments can be conducted in more than **28 regional languages**.
- The Online platform **supports multiple types of questions**, eg. MCQs, fill in the blanks, Audio- Video based, Objective, Scenario-based.
- Once the candidate clicks on the link, he is redirected to the **test window** where he is given access to the webcam and microphone.
- The **entire test** is timed, and a **popup** appears on candidate's screen when the test is about to finish.
- **AI (Artificial Intelligence)** will automatically capture snippets while the candidate is giving the test.
- System **raises flags** in case of candidate's suspicious behavior.
- After successful completion of Assessments, the **results are instantly** declared, and **the certificates** can be **downloaded online**.



Mrs. Sonia
Assistant Manager

BRIDGING SKILL GAP IN NEW & RENEWABLE ENERGY

There are very few things that changed the world the way Power has. Power(electricity) is and will be part of our lives for as long as our mind can imagine. Our country is world's third largest producer and third largest consumer of electricity. According to Central Electricity Authority monthly installed capacity report July 2020, the national grid in India has installed capacity of 371.97 GW including renewable and non-renewable both total installed capacity as on 31st July 2020 . The share of renewable energy in installed capacity is about 23%. It is obvious that power generation & consumption will go upwards in future. Therefore Government of India has set a target of installing 175GW of renewable energy capacity by 2022 which includes 100GW from solar,60 GW from wind,10 from bio-power and 5 GW from small hydro-power. To achieve this target of installing enormous energy, we will require huge number of skilled workforce. According to IRENA reports it was estimated that India's solar energy workforce comprises 164,000 workers in 2018, while installed capacity of solar was 21.6 GW. According to NDC PLUS scenario India would create new jobs around 260,000 by 2030.

Current Programmes:

To fulfil the skilled workforce requirement there are many schemes and activities promoted under Ministry of Skill Development and Entrepreneurship (MSDE) and various other Ministries. Some of them are as follows:

(1) Apprenticeship: National Apprenticeship Promotion Scheme (NAPS) is the program under MSDE which consists of basic training and on-the-job-training (OJT)/practical training at workplace in any industry or establishment.

SCGJ is focusing NAPS on Solar PV Manufacturing Technician and Suryamitra QPs in Solar domain

(2) Short Term Training (STT): Short Term Training aims to catalyze the skill development eco-system and actively collaborating with Government Agencies, reputed private skill training institutions, industry partners to impart industry oriented and placement linked skill training.

SCGJ is implementing 'Suryamitra' STT programme promoted by Ministry of New and Renewable Energy.

(3) BVoc: Bachelor of Vocational Course is an emerging course in India that aims at providing adequate skills required for a particular trade to candidates. The course is different from traditional academic programmes as it deals more with application-based studies rather than focusing on only theoretical knowledge. BVoc helps in acquiring great amount of practical knowledge.

SCGJ has conducted B.Voc programme in 9 Institutes on waste, wastewater management, Biogas, wind and solar sector

(4) Recognition of Prior Learning: A huge section of India's unorganized workforce are skilled and semi-skilled. Most of them pick up skills and knowledge in an informal set up by observing people or working under their guidance or through complete self-learning. As a result they even manage to get a job, but they are not able to improve their skills. This is where Recognition for Prior learning (RPL) can help them get assessed and certified on their current competencies as per NSQF levels. RPL also shows them path to bridge their current knowledge and skills level to reach a competency level or to go for higher skills for professional growth.

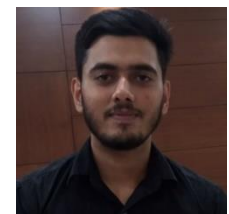
SCGJ has conducted RPL 2, RPL4 in wastewater, waste management and solar domain.

BRIDGING SKILL GAP IN NEW & RENEWABLE ENERGY

Future Development

Government of India has announced the new Education Policy (NEP 2020) on 29 July 2020 outlines the vision of India's new education system. The policy is a comprehensive framework for elementary education to higher education as well as vocational training in both urban and rural India.

The policy aims to transform India's education system by 2030. Although 2030 is very far from now but recently Karnataka has passed the resolution to implement the NEP 2020 (Hindustan Times). As this policy focuses on vocational skilling of students as the student's will be taught a vocational skill by his/her choice by the time they complete their schooling. SCGJ may promote skill ecosystem by training school students on **Solar Lighting Technician** Qualification Pack. This would be hands on activities to raise awareness and understanding of renewable energy.



Mr. Divyanshu Parashar
Intern

NEW INITIATIVES

FUTURE JOB ROLES IN OPERATIONS AND MAINTENANCE OF BIO-CNG PLANTS

Skill Council for Green Jobs in partnership with DFID India, under the Skills for Jobs Programme of DFID identified new age and emerging job roles in the Bio-CNG plants which would further guide development of National Occupational Standards.

KPMG was the implementation partner to carry out the study. The study was based on secondary research and primary consultations with the industry partners to identify the emerging areas in the field of operations and maintenance of Bio-CNG plants that would require skilled workforce. The study identified the types of jobs likely to be in demand in next 3 -5 years, along with a cumulative skilled workforce number, for which there is a need to develop training standards. The analysis takes into account the employment potential in the sector based on government initiatives for promoting energy sustainability through renewable sources like Bio CNG/ Bio Gas. The study also captures the expertise present in UK in the Biomass sector and how it can be leveraged through mutually beneficial partnerships.

DFID in partnership with KPMG and SCGJ organized a webinar on 29th July 2020 on Dissemination of study findings for Future Job Roles in Operations and Maintenance of Bio-CNG plants. A total of 44 participants including sector Experts and industry participated. Based on the deliberations, it has been decided to develop qualification packs for major job roles in operation, maintenance and installation for the Bio-CNG/Biogas sector. Other activities like joint certifications by SCGJ and DFID and organizing webinars/seminars through their knowledge partners would also be considered.



Department for International Development | Department for International Trade
 UK Government | SCGJ | SKILL COUNCIL FOR GREEN JOBS

Study Dissemination : Online Meeting
Future Job - Roles in Operations and Maintenance of Bio-CNG Plants
 Date: **Wednesday, 29 July 2020** | Time: **2:30 - 4:00 PM (IST)**

Moderator	Speakers			
 Anu Gupta Head, Skills DFID India	 Sh. Dinesh Dayanand Jagdale JS, MNRE, GOI	 Mr. Gavin McGillivray Head of DFID India	 Dr. Praveen Saxena CEO, SCGJ	 Dr. Parveen Dhamija Senior Advisor, SCGJ

[Join Microsoft Teams Meeting](#)

To secure your place in the session as participant and to share your questions to the panelists in advance, please email at ramita.Taneja@fccj.com

The Editor of this edition

Sarvesh Pratap Mall

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2021 is expected to be year of significant and positive global transformation

Sarvesh is Senior Technical Officer at Skill Council for Green Jobs having more than 5 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



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