

GREEN JOBS NEWSLETTER



SCGJ
SKILL COUNCIL FOR GREEN JOBS
ISO 9001 : 2015 CERTIFIED

N-S-D-C
National
Skill Development
Corporation
Transforming the skill landscape

Skill India
कौशल भारत - कुशल भारत

ISSUE 18 | April 2022



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Clean Fuels & Emission Reduction

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From CEO's Desk

The revised targets made by the Government of India relating to Indian contribution for global climate action present a great opportunity for SCGJ to meet the requirements of skilling and job creation in all these key sub-sectors. SCGJ continued with its efforts to consolidate and strengthen its technical capabilities and review of qualifications and training materials.

I am happy to share that SCGJ is working with a range of bilateral and multilateral institutions like GIZ, UNDP, FCDO and USAID for quality training and developing qualifications on new thematic areas such as Green Hydrogen, Solar charging stations, Solar wind hybrid with Storage, Circular Economy and Pollution Prevention & Control etc.

SCGJ is also focusing on online training and has developed online training modules for technicians of waste water treatment plants and for solar grid engineers wherein both the e-learning contents are aligned to SCGJ NSQF approved qualifications. We have also upskilled 1400+ "Suryamitra" candidates across 13 states and UTs under GIZ supported 'Indian Rooftop PV Installers Skilling and Employment (IRISE) project.

Over 70 trainers have also been trained and certified by the German Master Trainers and Experts through a virtual TOT conducted. To promote entrepreneurship a new qualification on Solar Entrepreneur has been developed. SCGJ is taking initiatives on skill development to promote green hydrogen and air pollution control in the Country.

Promotion and implementing CSR projects for different sectors has always been a priority. You will be glad to learn that JP Morgan Chase has recently awarded a study on Landscape of Green Jobs in India with the objective to advance green jobs in the country. Further three more CSR projects have also been awarded to SCGJ, one by SBI Cards for rooftop solar power installation, another from Climate Policy Initiative for training of solar rooftop entrepreneurs and third from HCL Foundation to train Sanitary workers.

In order to continue its efforts for promotion of learning SCGJ continues to organize series of webinars on the occasion of "Azadi Ka Amrit Mahotsav" covering various topics in Renewable Energy, Sustainable Development, waste management, waste to fuel etc. The webinar series was launched on 24th September, 2021 by the Chairman SCGJ and so far 20 webinars have been organized.

I am also proud to inform that SCGJ is preparing for the WorldSkills, Shanghai 2022 and has taken many initiatives with Industry partners and consulted world skills experts to refine and define the strategies to be adopted for WorldSkills Shanghai 2022.

All these endeavors have been possible with the support from all of you and I look forward to more successful ventures.

Dr. Praveen Saxena
CEO, Skill Council for Green Jobs

Decarbonising Indian agriculture



DEEPAK GUPTA & KOLLURU KRISHAN

Gupta is former secretary, MNRE, and former chairperson, UPSC, and Krishan is chairman, CVC India Infrastructure

A chunk of the capital needed for sustainable agri-pathways can come from repurposing existing subsidies

AS PER INDIA'S third Biennial Update Report, in 2016, agriculture and livestock emitted 407,821 Gg of CO₂e, around 14% of total emissions. Out of this, 61.3% is linked to livestock. The figures for Land use (LULUCF) are net sink of 307,820 Gg CO₂e, representing 15% removal from total emissions, primarily from forest and cropland. The significance increases manifold when socio-economic impact is factored. India, with 1.75 million sq km arable land and a 300 million cattle population has 160 million rural households with agriculture being the main source of livelihood. Hence, decarbonisation has to be carefully calibrated to avoid an adverse impact to over 120 million marginal farmers who are still in the 'survival phase' of their socio-economic development.

Meanwhile, transition to sustainable and climate-smart agriculture and land use can create many jobs and enhance incomes apart from mitigating GHG emissions and environment pollution. Apart from livestock, the major constituents of agriculture GHG emissions are rice cultivation (17.5%), fertiliser application (19.1%), and field burning of agricultural residues (2.2%). Deep decarbonising pathways would include reducing biogenic methane from cattle and rice cultivation; inculcating resource efficiency by reducing consumption of irrigation water, chemical fertilisers, and energy for cultivation/harvesting/transport as well as farm waste processing; reducing waste in the food supply chain; and building climate resilience through deploying automation and technology. The following factors are critical for both decarbonisation and sustainability:

Soil: Fertile soil enhances farm yields and incomes apart from being a carbon sink. Healthy soil holds more moisture

and soil conservation methods reduce erosion. The co-products of biogas/bio-fuels plants are compost/bio-char, which enrich soil, mitigate environment pollution, and displace chemical fertilisers.

Freshwater: Agriculture consumes over 80% of freshwater in India, making conservation critical. Micro-irrigation with automation and adoption of low water-intensivespecies and farming practices is essential. Areas under water-intensive crops must be reduced through crops diversification, examples being oil seeds, pulses, horticulture, and forage crops.

Alternate cropping:

This contributes to GHG mitigation and is an emerging area in climate-smart farming. For example, seaweed cultivation as additive to cattle feed reduces biogenic methane emissions, improves feed quality, and enhances milk production.

Agro-forestry: Trees act as windbreaks, reduce soil erosion, enrich soil, and filter water. Studies suggest that 5% increase at 5 yearly intervals to the existing 16 mha area can help mitigate India's projected emissions.

Bio-energy from farm waste: This offers immense potential for mitigating emissions as well as growth in non-farm economic activity. Manure-based community biogas plants can support clean cooking and distributed power. India's National Policy for Biofuels/ SATAT scheme set a medium-term target of 15 million tonnes of bio-CNG. IEA's India Energy Outlook 2021 estimates the potential being of 30 million tonnes Bio-CNG. BECCS (BioEnergy with Carbon Capture & Storage) involves capturing CO₂ from bioenergy plants and permanent storage. This will lead to carbon removal as well as negative emissions.

India has many programmes—National Mission on Sustainable Agriculture (NMSA) under the National Action Plan on Climate Change (NAPCC), National Initiative on Climate Resilient Agriculture (NICRA), and National Adaptation Fund for Climate Change (NAFCC). However, outcomes have not been satisfactory. Coordinated and action-oriented implementation and appropriate institutional architecture from the Centre to states to districts or agro-zones is needed. Sustainable agriculture pathways will require significant capital, but a large portion could come from repurposing existing subsidies. Climate finance and patient capital will be needed for areas having longer gestation period, viz biogenic methane mitigation, agro-forestry, etc.

As for land use, the key elements are halting deforestation, rejuvenating degraded forests, and accelerating afforestation. India has been an early mover through its "Greening India Mission" and NDC and aims to create 2.5-3 billion tonnes of carbon sinks by 2030. The total forests carbon stock has been estimated to be 7204 million tonnes. This is inadequate. A two-pronged approach is required—first, to generate high integrity, real-time data on forest status; and second, to undertake conservation, restoration, and regeneration under an integrated forest management framework. This requires funding and mobilising communities and addressing their needs, especially forest fringe villages.

Weather patterns are becoming disruptive. We need to back ambitious targets with a consensual approach and robust implementation. Suitable studies are needed on a dynamic basis. Each action must have a separate micro-plan with actions and timelines. Governance is tricky. Multiplicity of goals—increasing food production, alleviating poverty, and reducing emissions—may cause confusion. We need an optimal and mutually reinforcing overlap of these objectives with minimal negative tradeoffs through reinventing our relationship with land.

Multiplicity of goals—increasing food production, alleviating poverty, and reducing emissions—may cause confusion





14th GC Meeting

21st February 2022 | Video Conferencing

The 14th GC meeting of SCGJ was held virtually on 21st February. Chairman, SCGJ welcomed members and invitees in the meeting. He also mentioned that through the impacts of COVID have been reducing, majority of the trainings, meetings and all other required engagements continued mainly in the virtual world.

He mentioned that now India's economy is getting back on track and poised to rebound sharply after Covid pandemic dampened the growth. In that context, business confidence score has increased substantially across manufacturing and service sector and it is also seen in the recent budget that there has been a huge focus on infrastructure and finance sector which is going to further accelerate the growth of the economy. The Chairman mentioned that the Global energy landscape is transforming and India has also made rapid stride in renewable energy making India as the third largest renewable energy market. Skilling is key for India to meet its revised ambitious target and there lies a huge opportunity for SCGJ. Very recently the Policy on Green Hydrogen was launched which will facilitate India's transition to a low carbon economy.

He applauded that SCGJ team under the leadership of Dr Saxena has done a commendable job even during these testing times and a strong foundation for future has been created through successfully designing and implementing various skilling

interventions including virtual trainings, strengthening industry connect, job portal development, preparations for the World Skills which is Scheduled to be held in Oct 2022 at Shanghai, etc. He emphasized that a lot of focus has been given across all these important aspects by SCGJ team.

CEO, SCGJ mentioned that a major limitation which continued since March 2020 was that no physical trainings were conducted. The year 2021-22 remained a consolidation year, strengthening SCGJ technical capabilities and review of qualifications and training materials. However, with the restrictions on classroom trainings, SCGJ adopted E-Learning through launching SCGJ E Learning Management System (SEMS), and delivered various online courses and virtual trainings which included multiple trainings on various themes in solar in various languages for trainees from 42 ISA member countries. He indicated that SCGJ has also developed two Greening NOSs which are being adopted by all SSCs for the QPs development. Further, SCGJ has developed courseware for effectively incorporating greening attributes across all job roles, which would further contribute towards "Net Zero" emissions targets. Dr. Saxena mentioned that in the run up to WorldSkills, Shanghai 2022 and with the feather of India's first ever Gold medal at World Skills 2019 in SCGJ's cap, SCGJ has taken the initiatives for "Foundation Programme on Renewable Energy for India Skills 2021" to train and prepare interested registered candidates for World Skills 2022 under the guidance of WorldSkills experts and RE master trainers. After organizing regional competitions in Punjab and Andhra Pradesh, National Skill Competition was organized in Delhi on Renewable Energy(RE) and Water technology(WT). 5(RE)+2(WT) medal holder candidates from National Competition in both sectors are now being trained to participate in the WorldSkills Shanghai 2022.

CEO SCGJ mentioned that support from institutions like National Institute of Wind Energy, Alternate Hydro Energy Centre- IIT Roorkee etc will be very critical for the preparation of the candidates as their competencies and skills are tested across a range of aspects in solar, wind, bioenergy and small hydro power.



Key Activities

Standard and Research

A New Skill Gap Study is also being carried out for Solid waste management in 4 metro cities. CEO indicated that a study on 'India's Expanding Clean Energy Workforce: Opportunities in the Solar and Wind Energy Sectors' was released in Jan 2022. The report provides updated data on jobs created through India's on-grid solar and wind energy sectors during FY21 and FY22 along with an updated findings and recommendations geared toward achieving India's goal of 500 GW of non-fossil fuel electricity generation capacity by 2030. Further, it was informed that 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. Further 12 new qualifications including in wind energy (6), small hydro power (1), compressed biogas (4) and solar entrepreneurship (1) have been approved in NSQC. With this, SCGJ currently has 44 NSQC approved qualifications.

Assessment & Assurance

Regarding the key activities of Assessment & Assurance Group, it was informed that during 2021-22 by 21st Feb 2022, Total Trainings and Total Certification done were 17,315 and 16,361 respectively. Since inception, SCGJ trained 5,15,510 trainees and issued 4,99,537 Certification. SCGJ has conducted a one-day orientation program with

New Delhi Municipal Corporation for giving training to over 800 Safai Karamcharis. SCGJ has also conducted assessment and certification in Jharkhand, Gujarat, Tripura, MP and Uttarakhand State Missions. SCGJ has also conducted Training of Trainer program for Solar (39) and Waste Management (2) and waste water (5) domain. SCGJ has also conducted one day orientation program with Delhi Jal Board for giving training to Desludging operators. The training was focused on the health and safety measures of the workers.

Marketing and Partnerships

Highlighting the major Activities of Marketing & Partnerships Group, CEO, SCGJ informed that SCGJ participated in over 32 advocacy, skill development related events & exhibitions including Skill Competitions, meetings and Kaushal Melas; majority of which were done online. Information has been collected about all MSME's across Green business sectors and Industry Database has also been developed for all sub-sectors. 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)

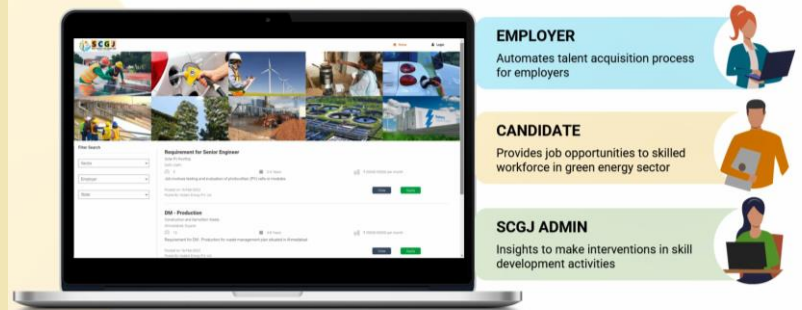


Former Chairman Remarks

Chairman SCGJ requested Mr. K Krishan, Former Chairman, SCGJ to share his observations and comments from his experience from COP 26 and the way ahead for SCGJ. Mr Krishan indicated that decarbonization of power sector is very important however, there are issues in scaling up issues in renewable energy and to a great extent there is a need for decentralized power and also of green hydrogen which will gradually flatten the load curve. He emphasized that green hydrogen with bulk producer or pumping into existing gas pipeline will generate immense opportunities for jobs and emissions reduction but green hydrogen for retail consumers will have immense challenges in future. SCGJ qualifications on biogas/bio CNG, SATAT etc. will have immense relevance. Further hard to abate sectors including steel, aluminium, plastics, cement etc will have immense opportunities to reduce emissions through adopting the concept of circular economy and SCGJ emerging focus in this direction will be very useful. Plastics waste management has its own challenges and the industry will support SCGJ when the interventions are designed. He also highlighted the issues with application of green ammonia in replacing coal in power plant or using as transportation fuel, unlike green methanol which is a proven technology. The issue of lack of jobs in rural economy can be addressed with the opportunities agriculture, land use and carbon removal offers. SCGJ started pre- Paris with the release of India's NDC however it took almost 2 years to prepare early NOS and qualifications however Glasgow has changed everything with a net Zero target and 2070 timeframe. He mentioned that the work done in the initial years of SCGJ operations needs to be updated in that context the existing JP Morgan funded study is quite relevant and timely.

SCGJ Rozgar Portal

During the 6th Annual General Meeting of SCGJ held on 21st September, 2021 it was suggested by members that "SCGJ should have an exclusive job portal designed for the wider aspirants in green business sector". Subsequently, a job portal (www.scgjrozgar.in) has been developed and is being currently tested. This is a technology initiative to seamlessly connect employers with skilled candidates in the Green Energy Sector. On this platform employers can create and publish the job post, monitor/track job applications while the candidates can register, apply for the job and track their application.



Industry Participation

It has been the endeavour of MSDE, NSDC and all Sector Skill Councils to continuously increasing Industry participation through targeted trainings, imparting demand driven skill development trainings, involvement of Industry members for Employment & Entrepreneurship etc. SCGJ is looking forward to enhance existing partnership with Industry members to enhance market mode training, entrepreneurship development and program of training of apprentices in the industry/ establishment by utilizing the facilities available therein for imparting on-the-job training.

Hydrogen-Fuel for future

Dr. (Mrs.) Parveen Dhamija
Advisor, SCGJ



Globally, a massive decarbonization is required through shift from conventional to renewable fuels to achieve the goal of limiting the rise of temperature to no more than 1.5 degree C. Hydrogen is a promising energy carrier which can address several energy sector related challenges and can substitute the conventional fuels. It is the cleanest fuel and is the most abundant element on the planet being very light, more energy dense and energy efficient. Hydrogen can be produced from a wide variety of primary or secondary energy source based on the available local feed stock and production route that can be used for a wide range of end use applications. Based on the source of production, hydrogen can be classified into grey/black/brown from hydrocarbon/coal where CO₂ is being emitted, blue hydrogen from hydrocarbons where the emissions are captured and stored (CSS) and green hydrogen from renewable energy sources. The use of hydrogen can reduce the CO₂ related emissions significantly at the point of use and if green hydrogen is used, the entire value chain can be decarbonized enabling reduced emissions and climate change threats.

The Ministry of New and Renewable Energy (MNRE) has seen hydrogen as an area of strategic interest and has supported a broad-based RD&D programme covering all aspects of hydrogen energy, including its production mainly from renewable energy methods, hydrogen storage in solid state materials and its application in IC engine and fuel cells for stationary, motive and portable power generation applications. In order to give further impetus to this sector, National Hydrogen Road Map was prepared in consultation with different stakeholders during 2005. Four Mission Mode Projects were identified in the Road Map, in the area of biological hydrogen production; hydrogen storage in hydrides and carbon materials; and development of hydrogen fueled internal combustion engine and its demonstration in vehicle. These Projects are coordinated projects with involvement of more than one implementing agency with inclusion of an industrial partner in some of them.

In order to serve the twin purposes of achieving India's emission commitments under the Paris Agreement and reducing the import dependence on fossil fuels, the National Hydrogen Mission was launched by Hon'ble Prime Minister on 15th August 2021 to support meeting the climate targets and making India a global hub for green hydrogen production and exports, This Mission emphasizes on hydrogen from clean sources and linking the country's growing renewable energy capacity with the hydrogen economy. The Government in pursuant to the Mission, plans to draw a roadmap for using hydrogen as an energy source. This has the potential to transform the transport sector, as for well as other sector industries. These sectors are the largest contributors to greenhouse gas emissions because of their using fossil fuels. Replacing fossil fuels with hydrogen will therefore help to reduce GHGs in a big way.

As a further step towards National Hydrogen Mission, a major policy enabler has been issued by Ministry of Power (MoP) for production of Green Hydrogen/ Green Ammonia using Renewable sources of energy. Hydrogen and Ammonia are envisaged to be the future fuels to replace fossil fuels. Production of these fuels by using power from renewable energy, termed as green hydrogen and green ammonia, is one of the major requirements towards environmentally sustainable energy security of the nation. Government of India is taking various measures to facilitate the transition from fossil fuel / fossil fuel based feed stocks to green hydrogen / green ammonia. The notification of this policy is one of the major steps in this endeavour.

The major policy initiatives are:

1. Power purchase from power exchange: Green Hydrogen / Ammonia manufacturers may purchase renewable power from the power exchange or set up renewable energy capacity themselves or through any other, developer
2. Bank unconsumed renewable power: The Green Hydrogen / Ammonia manufacturer can bank its unconsumed renewable power
3. Setting up single portal: To ensure ease of doing business a single portal for carrying out all the activities including statutory clearances in a time bound manner will be set up by MNRE
4. Setting up bunkers near Ports for storage of Green Ammonia: Manufacturers of Green Hydrogen / Green Ammonia shall be allowed to set up bunkers near Ports for storage of Green Ammonia for export / use by shipping.
5. The manufacturers of Green Hydrogen / Ammonia and the renewable energy plant shall be given connectivity to the grid on priority basis to avoid any procedural delays.
6. The benefit of Renewable Purchase Obligation (RPO) will be granted incentive to the hydrogen/Ammonia manufacturer and the Distribution licensee for consumption of renewable power.
7. Distribution licensees can also procure and supply Renewable Energy to the manufacturers of Green Hydrogen / Green Ammonia in their States at concessional prices which will only include the cost of procurement, wheeling charges and a small margin as determined by the State Commission.

The launch of the National Hydrogen Mission has given more impetus and various initiatives have been taken up. Many leading public and private companies are heavily investing in clean energy with focus on solar and green hydrogen. Government of India also plans to implement Green Hydrogen Consumption Obligation (GHCO) in fertilizer production and petroleum refining. GAIL India is planning to build electrolyser for production of green hydrogen while National Thermal Power Corporation (NTPC) is setting up India's largest solar park of 4.75 GW in Gujarat and plans to make green hydrogen there on a commercial scale. NTPC is also implementing a pilot project for mixing green hydrogen with natural gas for the city gas distribution network. The green hydrogen fuel cell based car has also been launched by Toyota in India. IRENA 2021 has come up with a Collaborative Framework on action to accelerate development and deployment of green hydrogen and its derivatives for the global renewable energy transformation. It envisages mainly to prepare global knowledge database for green hydrogen, facilitate cooperation with existing hydrogen initiatives and other relevant actors, develop standard and regulatory framework and discuss Environmental, safety aspects and social acceptance of hydrogen development.

The hydrogen/Fuel Cell (FC) economy and labour market will need a workforce trained in new skills for wide spectrum of industries. Since many of the technologies are still evolving, identification of training needs requires interactive research combined with job definition. Science and engineering education needs to change to prepare students for hydrogen and FC careers, and university and vocational programs need to be assessed to understand where opportunities lie and what additional curricula may be needed. SCGJ has also identified skill development in the hydrogen energy as a priority sector and is pursuing studies to identify skill gaps and corresponding job roles that could be taken up for developing of training modules at different levels. In a virtual workshop held recently in partnership with USAID, deliberations were made on policies, technologies and challenges for application of hydrogen in power generation and transportation. SCGJ will continue to work on taking this sector forward in conformity to its goals for skilling for promotion of clean fuels and emission reduction.

South Asia Energy MasterClass on Green Hydrogen

Mr. Deepak Rai

AVP-Standard & Research

SCGJ in partnership with USAID India, under their Asia EDGE initiative organized a 4 days virtual capacity building workshop titled “South Asia Energy Masterclass on Green Hydrogen” on March 8-11, 2022. The workshop was co-organised by South Asia Regional Energy Hub (SAREH) and South Asia Regional Energy Programme (SAREP).

The event had a focus to provide in-depth understanding of the emerging green hydrogen technology sector with an aim to enhance the awareness on latest technology, policy trends, potential applications, economics, and global standards and developing market. The masterclass was designed to include firsthand case studies that provide evidence and experience sharing on application of hydrogen for power generation and transportation.

It was a unique an invite only event with approx. 30 participants from multiple South Asian countries with representation from policy makers, planners, utilities, and regulators. The online masterclass also included pre-training assessment to assess participants’ baseline knowledge, identify knowledge gaps and understand their expectations. Certificate of Participation was provided to all the successful participants who attended the full training.

Approximately nine-hours masterclass was designed to help participants to:

- a. Learn fundamentals and basics of hydrogen
- b. Gain understanding of hydrogen industry technologies and terminologies
- c. Understand key applications of hydrogen based on global trends
- d. Know about the production, storage, and conversion technologies in the industry value chain
- e. Know about the global trends on standards and regulations related to safety, certification of origin, and other enabling regulations
- f. Takeaways from project examples and case studies from around the world



Opening Remarks at the virtual masterclass were delivered by Mr John Smith-Sreen, Director, Indo Pacific Office, USAID/India who welcomed the participants and explained the overarching objectives of the training program. Dr Praveen Saxena, CEO, SCGJ in his opening address also applauded the efforts taken by USAID and USEA along with SAREP and SAREH teams to organize a much needed and comprehensive training program on an emerging technology like green hydrogen which has immense opportunity for accelerating low carbon transition and realizing net zero targets. Green hydrogen and its derivatives are poised to enable the decarbonization of hard-to-abate sectors (e.g. transport) owing to their versatility, enabling their widespread applications across sectors. Growing global and domestic demand for hydrogen is expected to offer a significant opportunity for low-carbon production routes of hydrogen. This can ultimately lead to decarbonization of energy usage in various sectors while enhancing national energy security concerns. Many countries have formulated or are in the process of developing plans for green hydrogen economies. The Government of India too launched the first phase of the Green Hydrogen Policy in February 2022 as a step forward towards National Hydrogen Mission. The mission aims to make India a green hydrogen hub and help to meet its climate targets. It targets production of five million metric tonnes per annum (MMTPA) of green hydrogen by 2030 and the related development of renewable energy capacity. The masterclass comprehensively covered all key aspects of this emerging sector including the recent policy trends in South Asia, technologies and supply infrastructure including storage and handling, case studies, economics of green hydrogen, key applications in power sector and mobility along with experience sharing from Nepal and Sri Lanka.

Navigating Air Quality Management through the lens of Capacity Development

Arpo Mukherjee

Senior Programme Associate (iFOREST)



Air Pollution is a major growing concern for the residents of India, specially people living in NCR or along the Gangetic planes, there are numerous studies which claims the quality of air we breathe in India is much above the threshold limits, Air Pollution is not only a threat to Health but also to environment and climate change. Air quality management as a sector is of prime importance for the cities as the development activities in cities and adjoining industrial areas are faster, but air quality management should also be given importance for rural areas, mining areas and forest areas as burning of stubble, windblown minerals and forest fires also contributes to air pollution. The management of air quality is an action on priority and all the stakeholders must take actions beyond their jurisdiction for effective air pollution control strategies.

Due to the broad nature of the definition, the air pollution management in India is inherently multi-sectoral, multi-functional and multi-jurisdictional. The source of air pollution can be a point or an area, it can be stationary as well as mobile, but the airshed is common. There has been significant internal and external push in this sector to evolve, while the stakeholders are developing policies and standards, they are not developing a manpower requirement plan to tackle this problem.

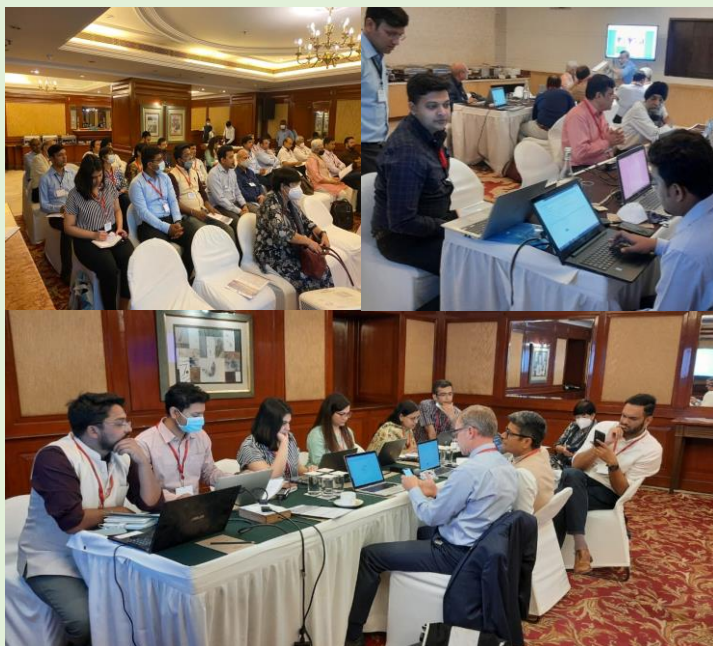
International Forum for Environment, Sustainability & Technology (iFOREST) in collaboration with SCGJ conducted a two-day workshop on “Development of National Program for Capacity Development for Air Quality Management”. The Workshop was participated by 50+ nationally and internationally renowned experts from Institute of Reputes, Accademia, NGO’s, Industries, Consultants and Government Bodies.

All the participants brainstormed to develop the national program in very structured and standardized manner, and identified 100+ existing job roles or potential jobs in context to India.



The Workshop identified the ideal job roles (NSQF level wise), their activities and their training requirements from organizations like Ministry of Environment, Forest & Climate Change, Department of Environment in states/UTs, Central Pollution Control Board, State Pollution Control Boards/ Committees, Institute of Repute (IoR), Other academic and Research Institutes, NGOs / Think-Tanks , Urban Local Bodies, Consultants/ Consulting firms, Air polluting Industries, Air pollution Monitoring and Control, Government/ Private Laboratories, Media, Financial Institution/ Economic Institutes and Health Agencies/ Institutes. These activities were divided into subsectors like Air Pollution Management and Control – Area Sources, Air Pollution Monitoring and control - Mobile Sources, Air Pollution Monitoring and Control - Stationary Sources, Air Quality Planning (Action Plans), Air Quality Planning (Development of Action Plans), Ambient Air Quality Monitoring, Audit, Inspection and Enforcement, Inventory, Modelling and Forecasting, Policy and Regulations.

The out come of the two-day workshop is currently analysed by iFOREST's team and will develop it in the form of a report after it will be reviewed by all the participating experts, this report will also act as a skill gap report for Air Quality Management Sector. Which will open new avenues for capacity building and job creations, It is estimated that there will be approximately 12 lakh new jobs / upskilling requirement in this sector in next 5 years.



Organizations Participated in the Workshop

Government Bodies

- Ministry of Environment, Forest and Climate Change
- Central Pollution Control Board
- Indian Metrological Department

Institute of Reputes

- IIT Kanpur
- IIT Bombay
- IIT Roorkee
- IIT Guwahati
- IIT Madras
- IIT Bombay
- NEERI
- Indian Institute of Tropical Meteorology

Health Agencies/ Institutes

- AIIMS New Delhi
- Respire Living Sciences
- Lung Care

NGOs / Think-Tanks

- iFOREST
- TERI
- Open Philanthropy
- Clean Air Fund
- International Centre for Satable Carbon
- Cstep
- CEEW
- EMC

Industry

- ARAI
- Indian Association for Air Pollution Control
- J K Cement
- NTPC
- Envirotech
- Flakt India
- AirVeda
- CPR

Multilateral Organizations

- UNEP
- World Bank
- CIIF
- Bloomberg

SCGJ Through Data

FY 2021 - 2022

Mr. Kamal Saxena

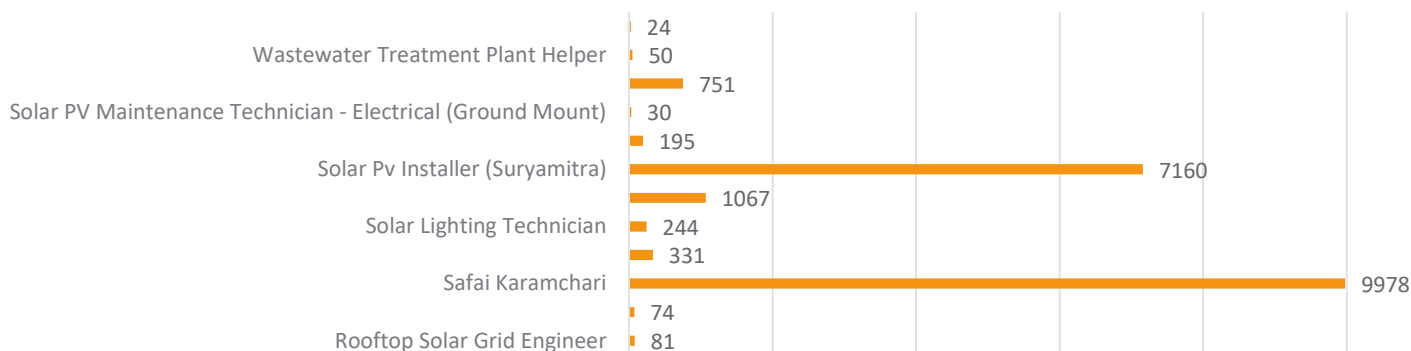
Manager - Operation & Strategy, SCGJ



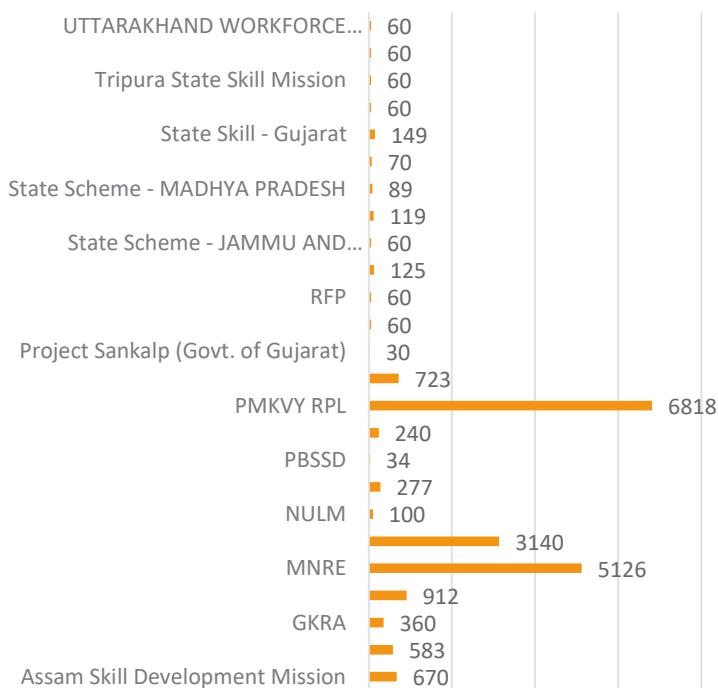
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CUMMULATIVE TRAINING = 518180

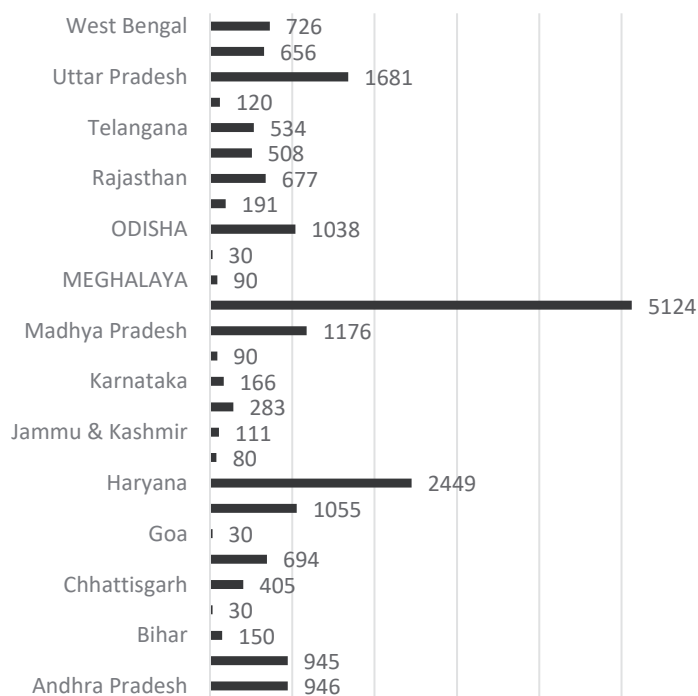
SCGJ Job Role Wise Training



SCGJ Scheme Wise Training



SCGJ State Wise Training



WorldSkills & IndiaSkills National Skill Competition

Mr. Prem Prakash Bharti
Manager - Technical, SCGJ



WorldSkills Competition known as the 'Olympics of Skills', is a flagship event of the WorldSkills International organized every two years. It provides a global platform to young people from 83 countries and regions to showcase their skills and talent. NSDC, through its WorldSkills India initiative, has been leading the country's participation at WorldSkills International competitions since 2011. India won one gold and silver medals each, two bronze medals and 15 Medallions of Excellence, ranking 13th among 63 countries that participated in the global event held in 2019 at Kazan, Russia.

The 46th WorldSkills Competition will be held on October 12-17, 2022, in Shanghai, China. The competition will bring together more than 1,400 young professionals, representing over 60 countries, who will compete in 60 skills. The event will take place at the National Exhibition and Convention Center, Shanghai, and is expected to create an environment appropriate for the competition and guide young people to seek excellence in skills.



SCGJ is preparing for the WorldSkills, Shanghai 2022 and has taken many initiatives with Industry partners and consulted world skills experts to refine and define the strategies to be adopted for WorldSkills Shanghai 2022. SCGJ organized a “Foundation Programme on Renewable Energy for India Skills 2021” to train and prepare interested registered candidates for World Skills 2022 under the guidance of WorldSkills experts and RE master trainers. After organizing regional competitions in Punjab and Andhra Pradesh, National Skill Competition was organized in Delhi on Renewable Energy(RE) and Water technology(WT). 5(RE)+2(WT) medal holder candidates from National Competition in both sectors are now being trained to participate in the WorldSkills Shanghai 2022.

Highlights of IndiaSkills 2021

5 Days

Nation Competitions held on Renewable Energy and Water Technology in New Delhi.

Candidate Selection

5 Candidates from Renewable Energy and 2 candidates from water technology selected.

Facilitation by Experts

World class Master Trainers are involved.

Latest Development

1 Candidate will be selected from each skill to represent at WorldSkill Shanghai 2022.



Renewable Energy - National Winners



Thank You Partners



Water Technology - National Winners



Thank You Partners





Azadi ka Amrit Mahotsav

Celebration of 75 years of India's Independence

Mr. Arpit Sharma
Vice President - Strategy & Operations, SCGJ



SCGJ Azadi Ka Amrit
Mohotsav Website

<https://scgj.azadikaamritmahotsav.in/>

SCGJ is continuing to bring eminent Speakers in diverse field/sectors so to enhance knowledge and learning and bring forth various development and innovation in Renewable Energy(RE) and waste management as a part of the 'Azadi ka Amrit Mahotsav' 2021-22. In Quarter IV of FY 2021-22, a total of 10 lectures have been organized on different topics. The video link of the lectures can be access through:

https://www.youtube.com/playlist?list=PLofZcNZJ8Dg7dSH0J3hDUcUb_UPmnrreM



7th January 2022, 12:00 PM - 1:00 PM
Transitioning to Clean Cooking

Speaker: Ms. Neha Juneja, Co-founder, Greenway Appliances



28th January 2022, 12:00 PM - 1:00 PM
Skilling in Organic Waste Management

Speaker: Dr. Supreet Kaur



18th February 2022, 12:00 PM - 1:00 PM
Water Harvesting, Rain and Storm Water Management

Speaker: Mr. Anand Dad



11th March 2022, 12:00 PM - 1:00 PM
The Power of Positive Self Communication for Professional Success

Speaker: Ms. Divyaa Kummar



4th February 2022, 12:00 PM - 1:00 PM
Reprocessing Blue Gold for Healthier Ecosystem

Speaker: Mr. Randhir Singh



25th February 2022, 12:00 PM - 1:00 PM
Universal Access to Clean Energy - Challenges and Possible Ways

Speaker: Dr. Manjushree Banerjee



21st January 2022, 12:00 PM - 1:00 PM (IST)
Social & Behaviour Change Communication

Speaker: Ms. Soma Biswas, Communication Advisor, GIZ



11th February 2022, 12:00 PM - 1:00 PM
Management, Treatment, Conservation, Recycling and Recharge

Speaker: Mr. Rameshwar Lal Dad



25th March 2022, 12:00 PM - 1:00 PM
Sustainable Supply Chain of Plastic Waste Management

Speaker: Mr. Ashish Jain

Events & News

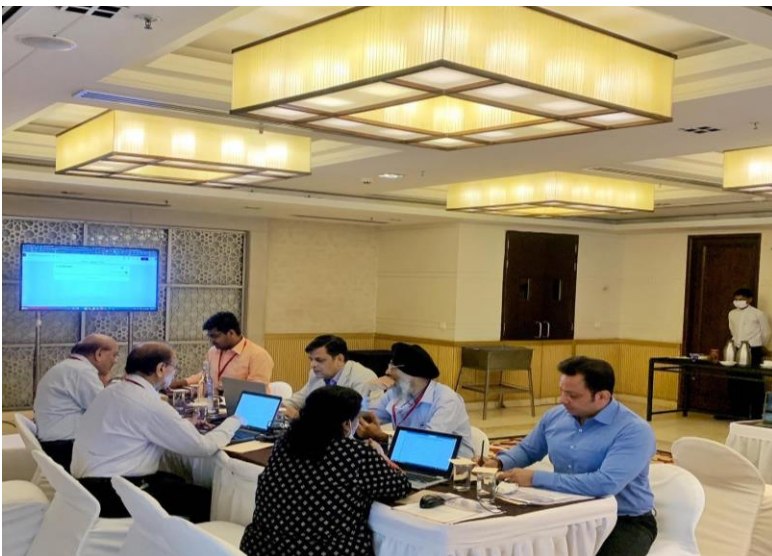
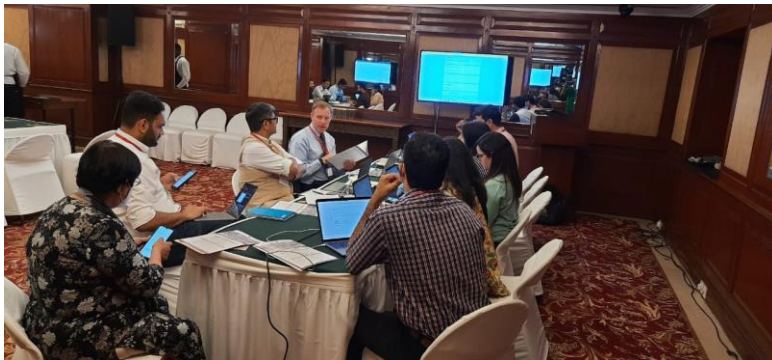
Skill Council for Green Jobs



Workshop on “Development of National Program for Capacity Development for Air Quality Management- 28th& 29th March IHC, Delhi

Under the National Knowledge Network(NKN), an advisory body has been set-up by the Ministry of Environment, Forest & Climate Change/ Central Pollution Control Board to support the implementation of the National Clean Air Programme (NCAP) with the support of the World Bank. The goal of this project is to develop a roadmap for the capacity building in the Air Quality Management sector aligned with the National Skills Qualification Framework of India.

Under this project International Forum for Environment, Sustainability & Technology (iFOREST) in collaboration with SCGJ conducted a two-day workshop with the objective of building local technical capacities for creating a large institutional support structure for the successful implementation of the national plan.





Training Program on Solar Entrepreneurship

Two days physical training on Solar Rooftop Entrepreneurship was organized by SCGJ on March 7-8 2022 at its in house training facility in New Delhi. The training event was organized through the support of Climate Policy Initiative. The training program was designed to provide a thorough understanding of the solar PV rooftop market to entrepreneurs who wish to venture into the solar sector. It had a focus on delivering important insights on solar rooftop technology, policies, financing, regulations, market along with various compliances to start and run a successful solar rooftop business. The training was delivered by SCGJ Master Trainers along with various experts and representatives from industry, financial institutions etc to provide detailed information on how to create and run a successful enterprise in solar rooftop space.

Over 25 candidates successfully attended the training. A similar 2 days physical training in coordination with Institute of Solar Power Technologies and Vocational Training (ISPTVT) was organised on 26-27 March 2022 at Central Power Training Institute, Hyderabad.

Various speakers and representatives from Telangana Southern Power Distribution Company Limited, The Khadi and Village Industries Commission (KVIC) and industry together with SCGJ Master Trainer delivered the training which was attended by 13 candidates.





International Symposium

Dr.(Mrs.) Parveen Dhamija invited as a guest speaker to address the International Symposium on Chemical Wisdom by Her organized by Dept of Chemistry, Desbandhu College, Delhi on 31st Jan 2022.

Junior Skill Competition

On the occasion of Junior Skills 2021 (Felicitation of Winners) on April 02, 2022. Mr. Arpit Sharma, VP (Strategy & Operations) is receiving the certificate and award on behalf of (SCGJ) from (MSDE).



Visit to Centre of Excellence

Visit to National Institute of Solar Energy on 12th March 2022, one of the Centers of Excellence of Skill Council for Green Jobs by Shri Rajesh Aggarwal - Secretary MSDE, Mr. Ved Mani Tiwari - COO & Officiating CEO NSDC, Mr. Anand Mohan Jha - Senior Head NSDC, Dr. Praveen Saxena - CEO SCGJ



MoU Signed with Tamil Nadu

MoU has been signed with the “ Hon’ble Minister for Labour Welfare and Skill Development Department”, Shri Ganesan C.V., Member of Tamil Nadu Legislative Assembly on 09th March 2022.



Green Jobs and Entrepreneurship Conference 2022

Green Jobs and Entrepreneurship Conference 2022 on 25th March 2022 at IAS Officers Association, Bengaluru, Karnataka promoting skilled workforce for innovative industries. Ms. Sangeeta Patra, Vice President, Marketing & Partnerships, SCGJ and Former Chairman, SCGJ, Mr. K. Krishan participated in panel discussion.



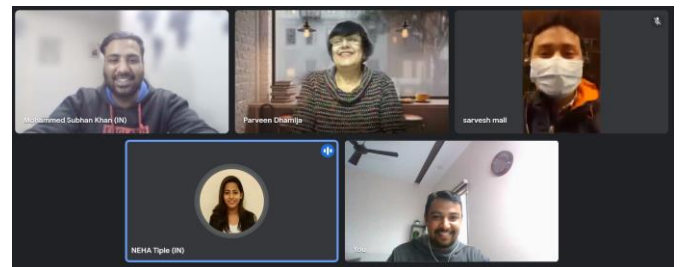
2 DAYS FREE VIRTUAL TRAINING PROGRAM
Battery Energy Storage System (BESS)
3rd & 4th March 2022
REGISTER & ENROL NOW
www.sems.training

TRAINERS

- Sameer Sharma**
Design Engineer
Energy Storage, RWE gmbh
- Eric Yang**
Senior Engineer of Energy Storage
Solution, GoodWe Solar
- Prem P Bharti**
Master Trainer, Skill Council for
Green Jobs (Skill India)
- Shatrughan Yadav**
Co- Founder and CTO
AHA Solar

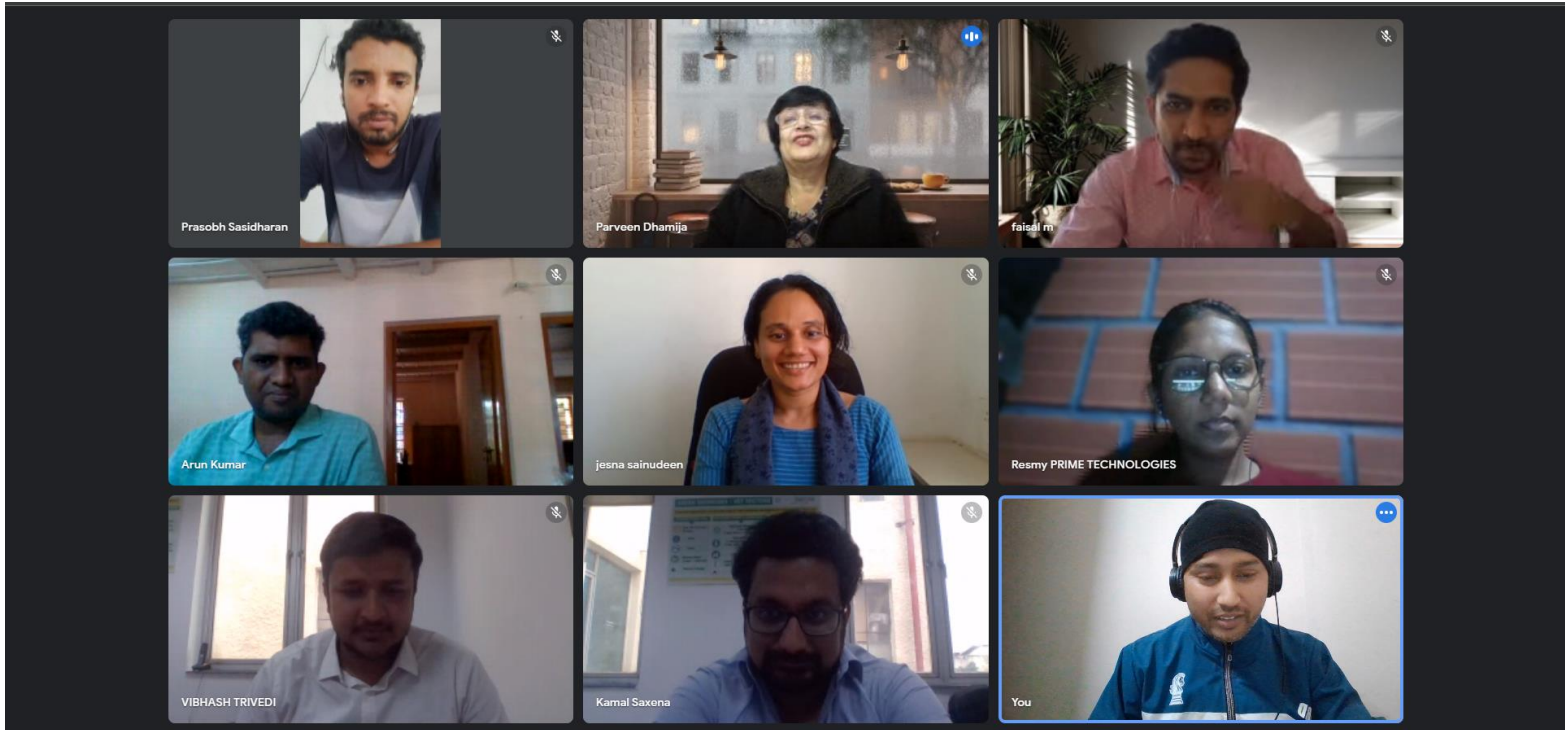
International Symposium

Skill Council for Green Jobs (SCGJ) with the support from GoodWe a leading inverter and energy storage solutions manufacturer organized a two days virtual training on “Battery Energy Storage System” on March 3-4, 2022 at 2 PM onwards. The virtual delivered by industry representatives along with SCGJ master trainers.



Participation in JICA study

SCGJ participated in data collection survey under study focused on the Indian market, policy & regulatory regime, technological options, business models and feedstock availability & supply chain for Biogas sector in India. This was conducted by PwC India on 4th Feb 2022.



Training of Trainers- Wastewater Management for State of Kerela

SCGJ conducted training of Trainers for 10 days on wastewater treatment for the State of Kerela in between 24th Jan to 02nd Feb 2022.



Review meeting with Chairman SCGJ

Review meeting with Chairman SCGJ was held on 16th February 2022 in the office of SCGJ. During the meeting, a presentation was made on the strategies and preparations for World Skills 2022.

SCAN TO WATCH



SCGJ Prescription for building India's Energy Resilience

Dr. Praveen Saxena prescribed to switch renewable energy on media for building India's Energy resilience.

The video link can be access through QR code.



Ukraine Russia Crisis
Impact on Global Economy

Prescription for building India's Energy Resilience

Dr. Praveen Saxena
CEO, Skill Council for Green Jobs (Skill India Mission)
Former Advisor to Govt. of India, MNRE
Former DG, National Institute of Solar Energy



PRAVEEN SAXENA

SCAN TO WATCH



Journey of Skill Council for Green Jobs since Inception. Please scan QR code to stream video.

The video link can be access through QR code.

<https://www.youtube.com/watch?v=YydG2BR5bgE>



SCAN TO WATCH



Knowledge Hub: Skill and Knowledge in Green Jobs under Creative Commons

Skill Council for Green Jobs is creating repository on Web platform on solar and related training for wider knowledge and skill dissemination. SCGJ is also creating awareness in the field of sustainability, renewable energy and waste management through conducted various Webinar under Azadi ka Amrit Mahotsav. All the contents are available on SCGJ YouTube Channel.

<https://www.youtube.com/channel/UCXHg5rsTUKj4sqFlanRZOJA/videos>

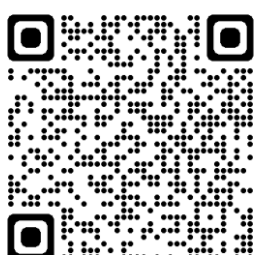


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SCAN TO WATCH



SCGJ Executed Projects

Report and Publications are available at:

<https://sscgi.in/publications/>