GREEN JOBS

NEWSLETTER

ISSUE 30 | APRIL 2025

INSIDE THE ISSUE

MESSAGE
From the CEO's Desk

Arpit Sharma
CEO
Skill Council For Green Jobs

As we navigate an era of unprecedented transformation in renewable energy and workforce development, I take immense pride in the strides we have collectively achieved. Our unwavering commitment to sustainability, technological innovation, and skill enhancement has set new benchmarks in the green energy landscape.

A series of high-impact workshops and knowledge exchange platforms have reinforced our mission to cultivate a future powered by clean energy. The Building Integrated Photovoltaic (BIPV) conclave in Coimbatore, along with specialized Floating Solar Technology sessions in Kochi and Gandhinagar, served as beacons of thought leadership, fostering dynamic collaborations among industry pioneers, policymakers, and domain experts.

Our Agri Photovoltaic (APV) initiatives, spanning Delhi, Pune, Kottayam, and Guwahati, have illuminated the vast potential of dual use land applications. By seamlessly integrating solar power with agricultural practices, we are shaping a resilient and sustainable energy ecosystem. These engagements have empowered stakeholders with cutting-edge insights into site selection, installation best practices, and regulatory paradigms, fortifying India's agricultural and energy sectors alike.

Furthermore, the momentous Indo-Australian collaboration on Solar PV Training heralds a transformative phase in technical workforce empowerment, positioning 2,000 professionals at the vanguard of solar excellence. Likewise, our instrumental role in the Electric Freight Transition Forum underscores our resolve to bridge skill gaps and fortify the evolving e-mobility sector.

The Solar Panel Installation Competition and the dynamic Solar Meet-up in Noida exemplified the power of industry synergy and hands-on skill development, setting a formidable precedent for future engagements. As we advance, our strategic focus remains on fostering disruptive innovation, shaping policy frameworks, and cultivating a future-ready workforce to accelerate India's clean energy transition.

I extend my deepest gratitude to our esteemed partners, stakeholders, and participants whose unwavering dedication continues to propel this transformative journey. Together, let us redefine the contours of sustainability, innovation, and inclusive growth.

Key sectors covered under SCGJ

Renewable Energy

1. Solar (PhotoVoltaic)
2. Wind
3. Small Hydro
4. Energy Storage
5. Bioenergy: Biomass Power Generations,Biofuels, Biogas & Bio CNG
6. Clean Cook-Stoves

Environment, Forest & Climate Change

7. Solid Waste Management
   - Municipal
   - Agricultural & Animal Husbandry
8. Waste Water & Water Management
   - Sewage Treatment
   - Rain Water Harvesting & Micro - irrigation
9. E-waste Management
10. Carbon Sinks
    - TBO Oil-seeds
    - Under Agro - Forest + Plantation
11. Eco-Tourism

Sustainable Development

12. Green Hydrogen
13. Green Construction
    - Green Buildings
    - Green Campuses
14. Green Transportation
    - Electric Vehicles
    - Bio-Fuels Vehicles
    - Bio-CNG Vehicles
15. Pollution Prevention & Control

Overall Achievement

11
Skill Gap Studies Undertaken by SCGJ

56
Qualifications Developed by SCGJ

5,582
Trainers Certified by SCGJ

964
Assessors Certified by SCGJ

6,04,536
Candidates Trained & Certified by SCGJ

1 Gold, 1 Sliver & 1 Medallion of Excellence in Water Technology and 1 Bronze in RE at World Skills.

SCGJ Statistics

Trainings and Assessments

Summary of TOMT, TOT, TOA, New Training Center Affiliations, and Total Trainings Conducted to Date

Total Trainings Since Inception
6,30,979

Total Certification Since Inception
5,95,514

Total Trainings in FY 2024-25
55,450

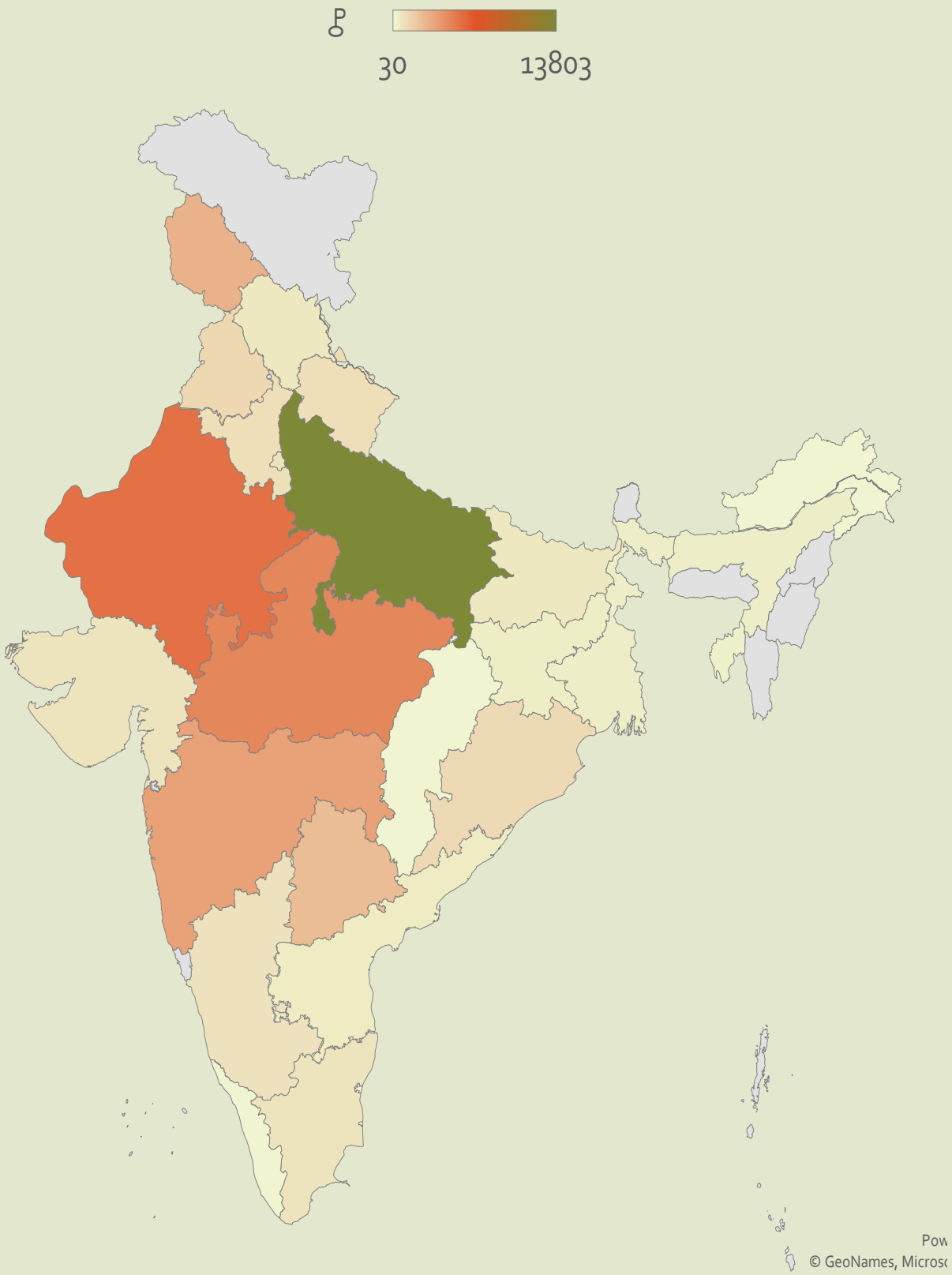
Total Certifications in FY 2024-25
44,249

State Wise Certification Status for the FY 2024-25

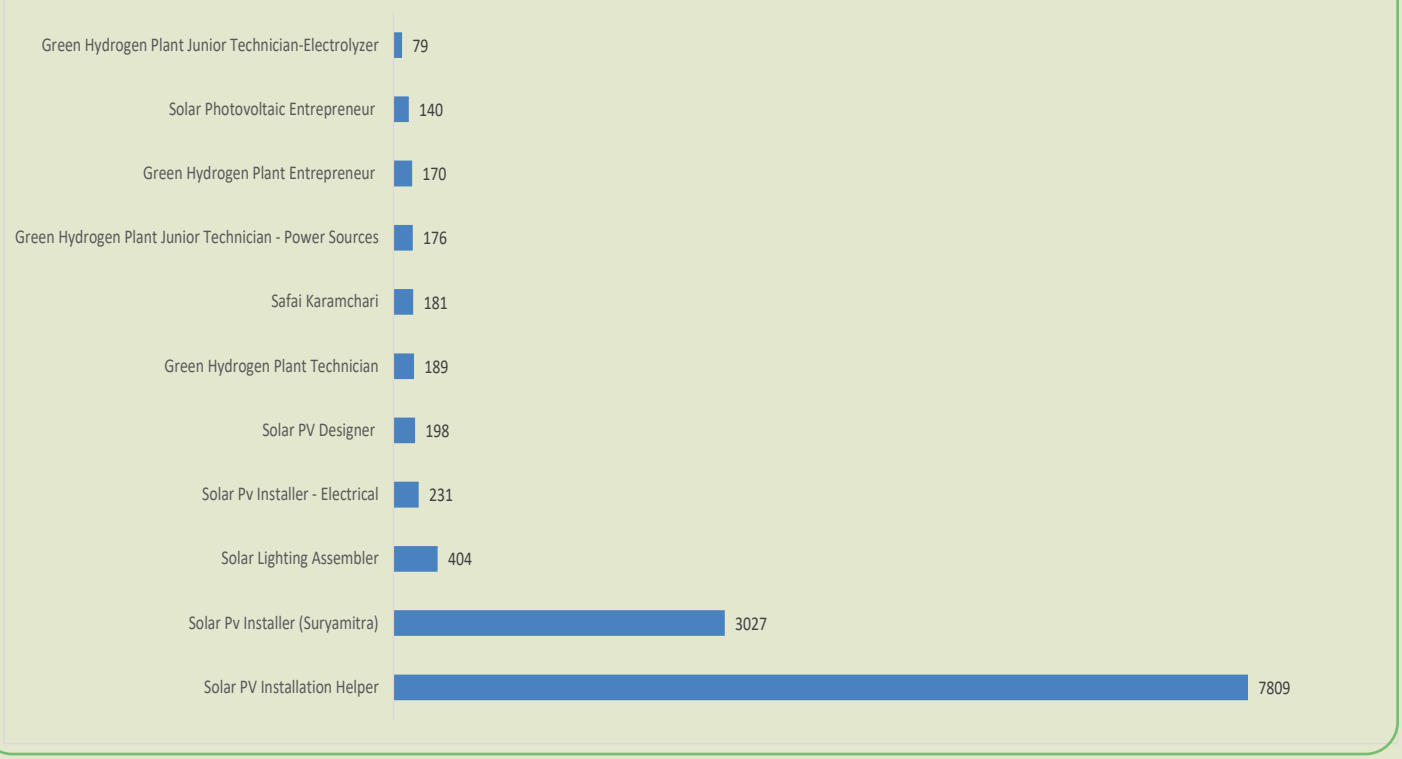
Sr. No.	State	Candidate Certified
1	Uttar Pradesh	13803
2	Rajasthan	5645
3	Madhya Pradesh	4705
4	Maharashtra	3587
5	Jammu And Kashmir	2819
6	Telangana	2430
7	Punjab	1254
8	Odisha	1160
9	Uttarakhand	974
10	Haryana	962
11	Karnataka	819
12	Delhi	814
13	Gujarat	809

Sr. No.	State	Candidate Certified
14	Tamil Nadu	794
15	Himachal Pradesh	644
16	Bihar	638
17	Andhra Pradesh	553
18	Jharkhand	433
19	West Bengal	401
20	Assam	387
21	Tripura	256
22	Kerala	122
23	Chhattisgarh	99
24	Arunachal Pradesh	65
25	Puducherry	46
26	Gujrat	30
Total		**44249**

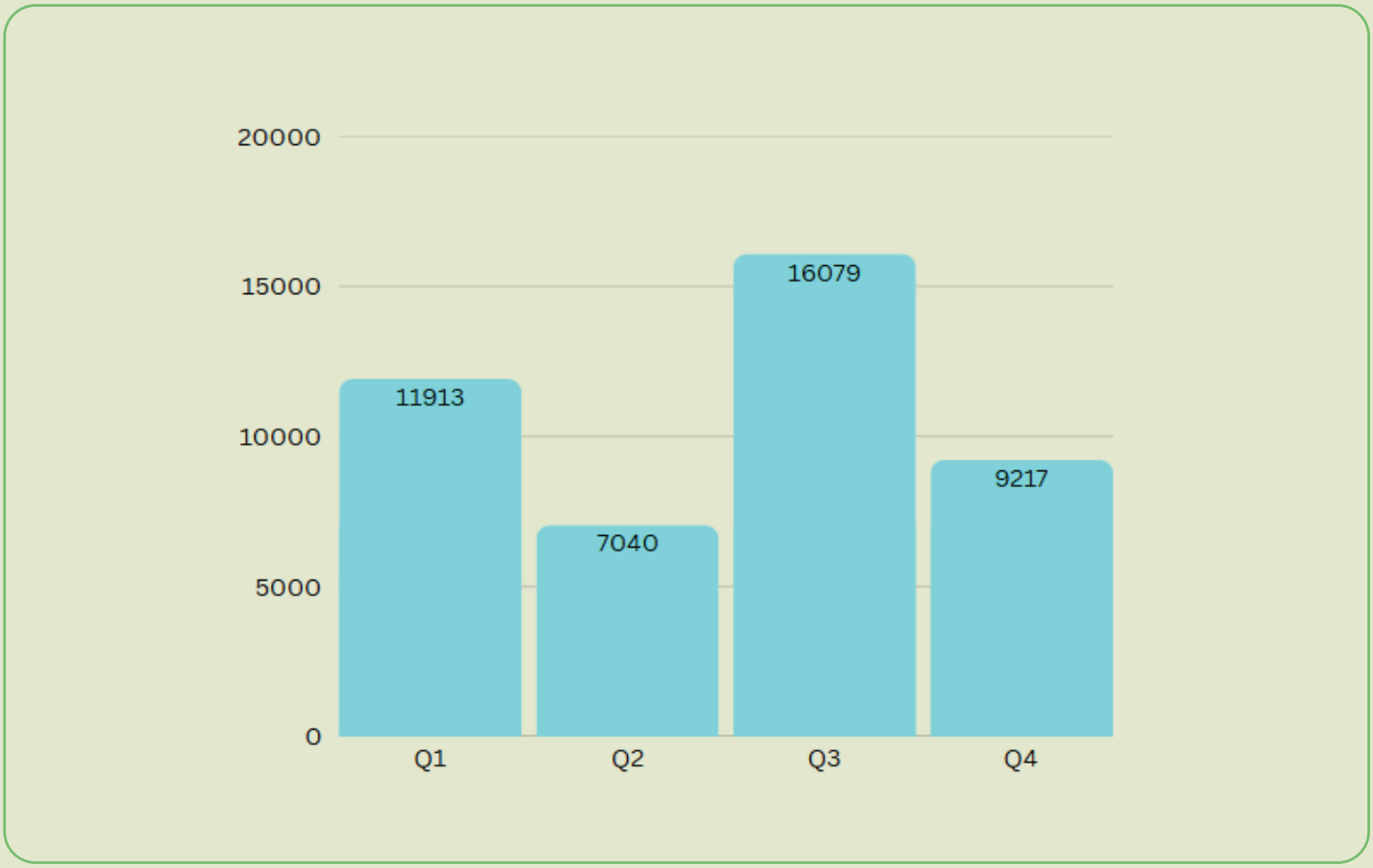
State Wise Out-Reach in the FY 2024-25



Training During January 2025 to March 2025



Quarter Wise Certification Status for the FY 2024-25
Total Candidates Trained & Certified - 44249



Skill Council for Green Jobs (SCGJ) Accelerates Solar Installation Training Under PM Suryaghar Muft Bijli Yojna

The Skill Council for Green Jobs (SCGJ) is making significant strides in its mandate to provide capacity building training for Solar Installation Helpers under the Pradhan Mantri Suryaghar Muft Bijli Yojna, awarded by the Ministry of New and Renewable Energy (MNRE) & Rural Electrification Corporation Limited (REC) in September 2024. SCGJ was entrusted with the ambitious goal of training 20,500 electricians pan-India on its Qualification Pack "Solar PV Installation Helper".

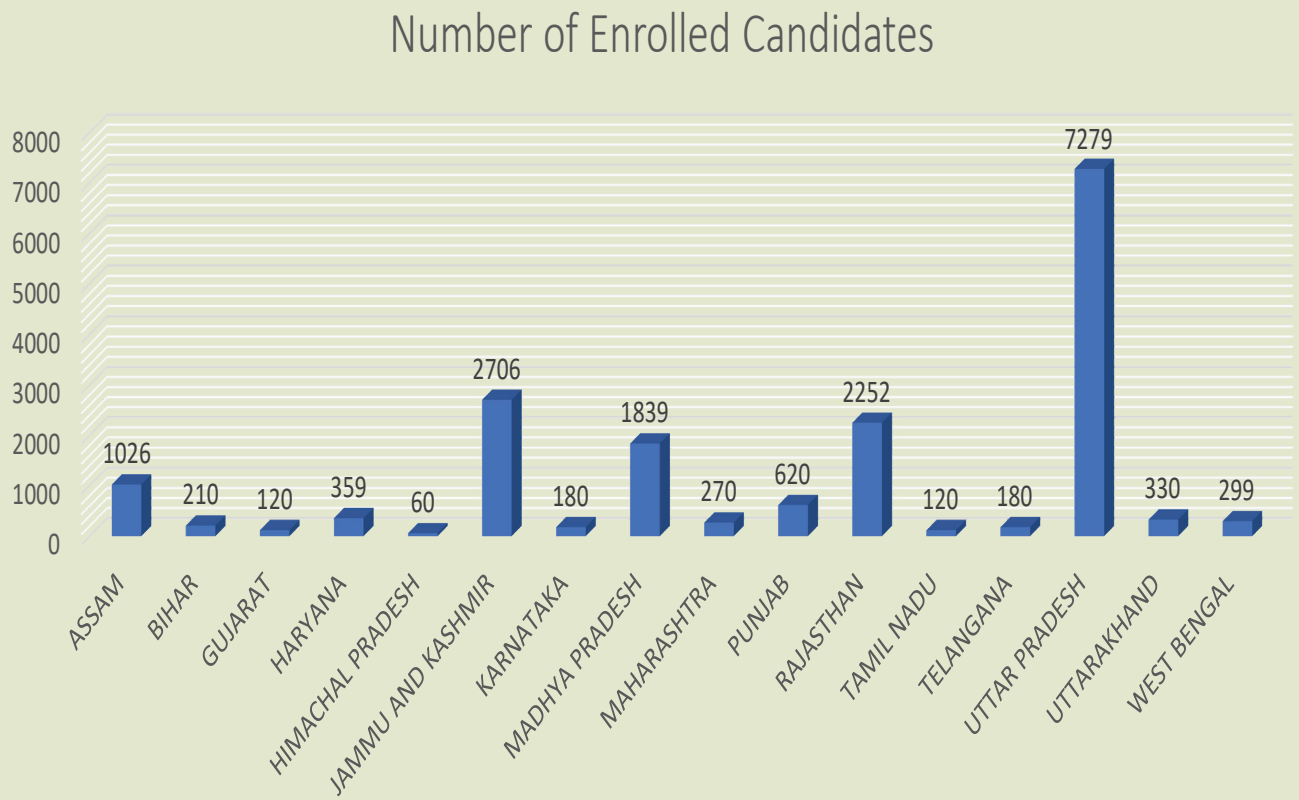
In a short span of six months since the project's commencement in October 2024, SCGJ has already enrolled over 17,850 candidates and assessed more than 13,786 candidates (as of April 22, 2025). This remarkable achievement represents approximately 87% of the total target, putting SCGJ firmly on track to achieve the remaining target well before the project deadline of July 31st, 2025.

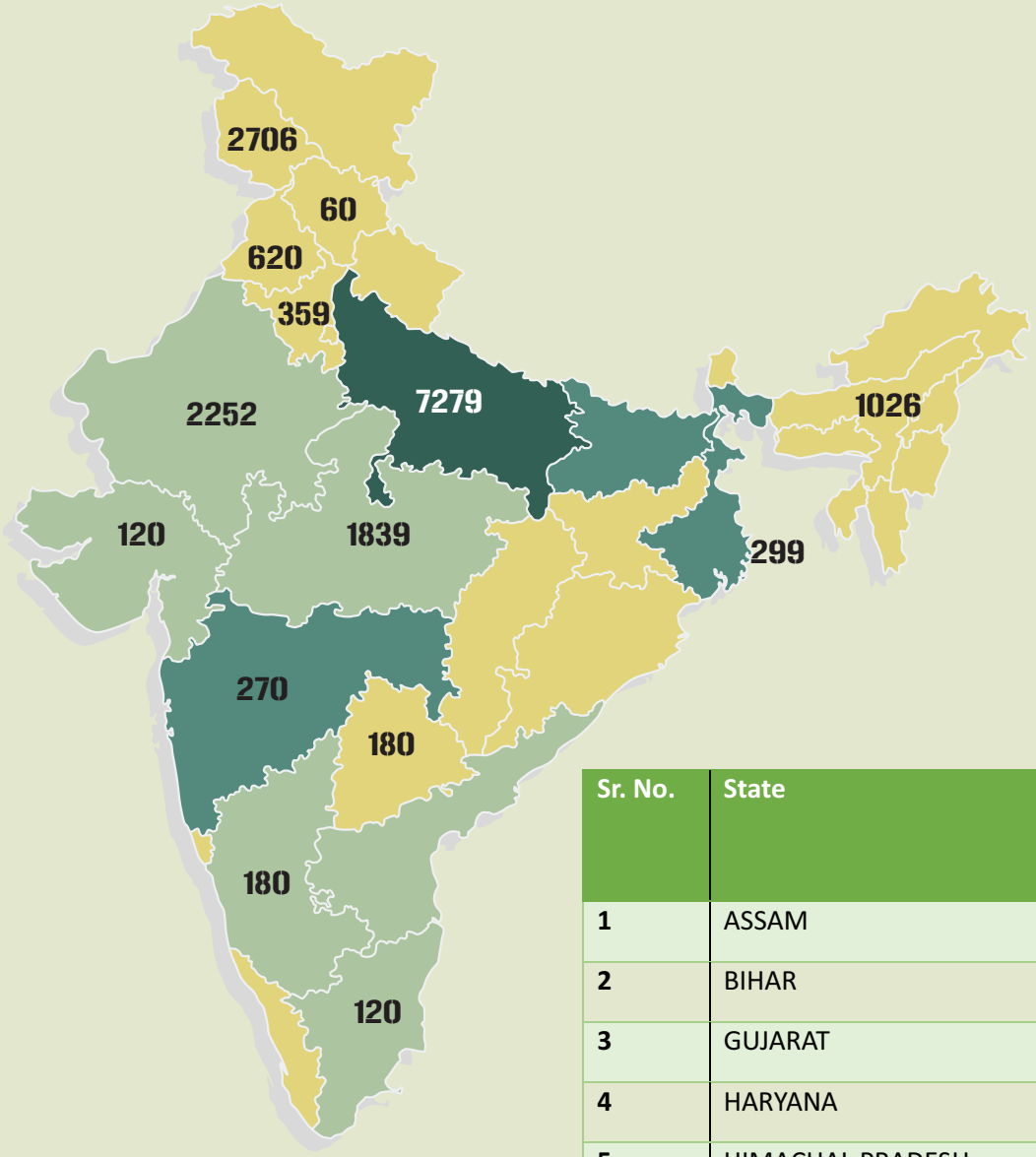
This progress has been widely recognized and appreciated by the Governing Council members during their 22nd GC meeting held on March 28th, 2025, as well as by the participating students, local bodies, and both print and social media.

The project's current reach spans across 16 states and 100 districts with a total enrolment exceeding 17,850 candidates.

State-wise Distribution of Training Batches:

To visualize the geographical spread of the training program, the following graph illustrates the number of batches conducted in each of the 16 participating states:





Sr. No.	State	Number of Enrolled Candidates
1	ASSAM	1026
2	BIHAR	210
3	GUJARAT	120
4	HARYANA	359
5	HIMACHAL PRADESH	60
6	JAMMU AND KASHMIR	2706
7	KARNATAKA	180
8	MADHYA PRADESH	1839
9	MAHARASHTRA	270
10	PUNJAB	620
11	RAJASTHAN	2252
12	TAMIL NADU	120
13	TELANGANA	180
14	UTTAR PRADESH	7279
15	UTTARAKHAND	330
16	WEST BENGAL	299
Grand Total		17850

Key Personnel Driving the Project:

The success of this project is attributed to the dedicated efforts of the Strategy and Operations Team at SCGJ, under a stringent monitoring by Mr. P.B. Singh. The whole execution is being executed by the Strategy and Operations Team of SCGJ which include – Mr. Ankur Sood, Mr. Shekhar Singh, Ms. Aditi Sharma and Ms Reetika Kushwaha.

SCGJ remains committed to achieving the remaining targets and contributing significantly to the success of the Pradhan Mantri Suryaghar Muft Bijli Yojna, empowering individuals with the skills needed for a sustainable future. PM Suryaghar Muft Bijli Yojna training has been highlighted in the print media in various newspaper.

इंस्टॉलेशन हेल्पर कोर्स के किताब व प्रमाण पत्र का वितरण

पीएम सूर्य घर मुफ्त बिजली योजना प्रशिक्षण कार्यक्रम संपन्न

ग्रीन जॉब्स सेक्टर स्किल काउंसिल के ट्रेनिंग सेंटर न्यू गुरुकुल संस्था के द्वारा विद्यार्थियों को सोलर इंस्टालेशन हेल्पर के सर्टिफिकेट किये वितरण

सोलर पीवी इंस्टॉलेशन हेल्पर कोर्स व प्रमाण पत्र का वितरण

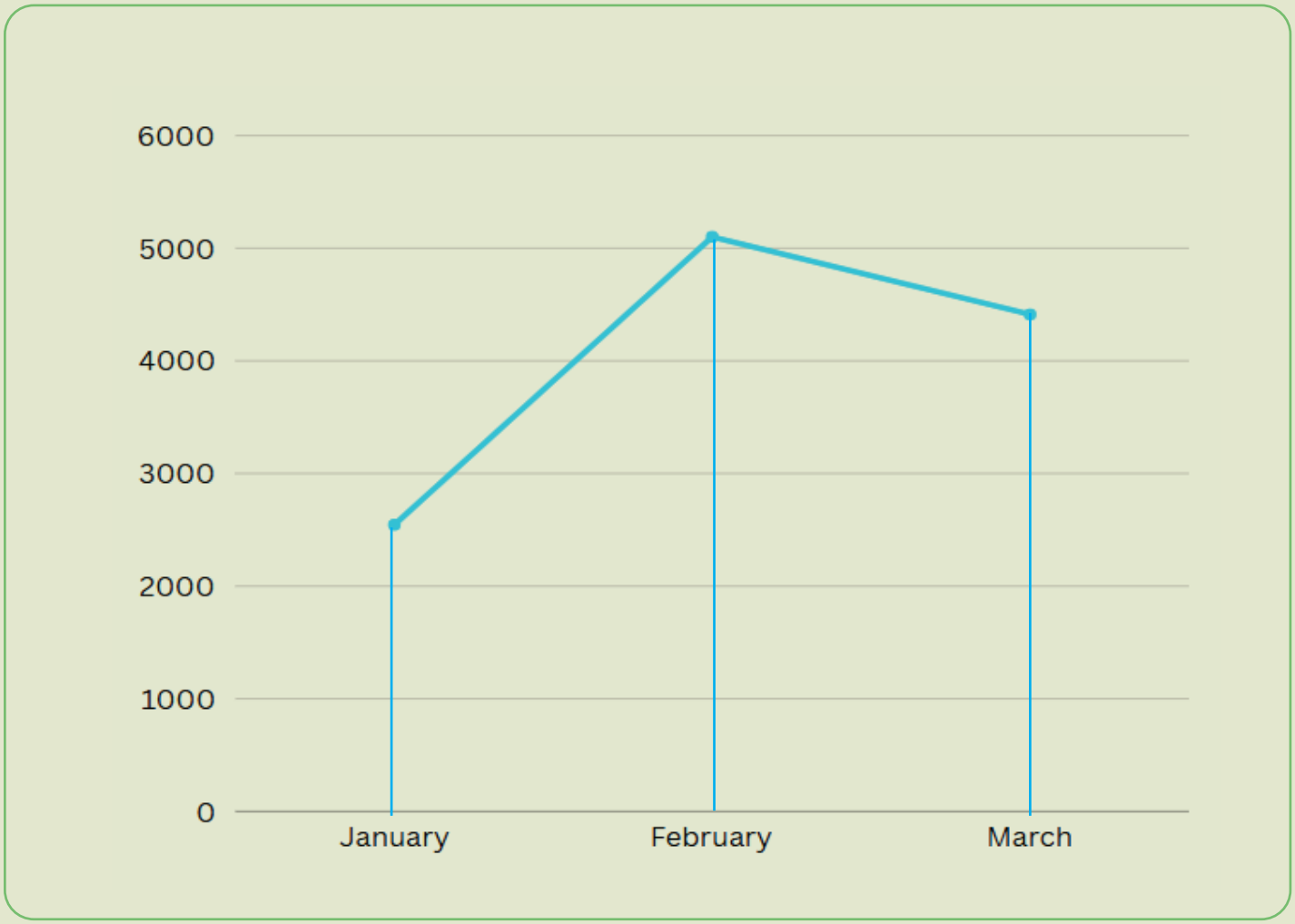
विद्यार्थियों को सोलर इंस्टालेशन हेल्पर के सर्टिफिकेट वितरित

सोलर पैनल इंस्टॉलेशन प्रशिक्षण संपन्न, कार्ड संस्था का अभिनव प्रयास

Grimes Of Training and Media Coverage

Name of the Newspaper	Date	Editorial Location
Amar Ujala	10th April 2025	Uttar Pradesh
Crime Bullet News	15th April 2025	Haryana
Desh Rojana	11th April 2025	Haryana
Desh Rojana	14th April 2025	Haryana
Crime Bullet News	12th April 2025	Haryana
Desh Rojana	12th April 2025	Haryana
Desh Roajana	12th April 2025	Haryana
Jan Wadi	10th April 2025	Uttar Pradesh
Jan Wadi	13th April 2025	Uttar Pradesh
Jan Shourya	13th April 2025	Uttar Pradesh
Hindustan	10th April 2025	Uttar Pradesh
Amar Ujala	04th April 2025	Uttar Pradesh
Jan Sandesh	10th April 2025	Uttar Pradesh

Month Wise Training Completion Status



SCGJ ACTIVITIES

Workshop on Building Integrated PV Systems Held in Coimbatore

A two-day workshop on Building Integrated Photovoltaic (BIPV) Systems was successfully held on February 20th and 21st at the CARE Centre for Energy Studies, PSGR Krishnammal College for Women. Organized by German Cooperation, GIZ, SCGJ, TISA, and EY, in association with Cares Renewable and SEPA, the event brought together industry experts, researchers, and sustainability enthusiasts.

The workshop focused on cutting-edge solar integration in buildings, highlighting the potential of BIPV systems in promoting sustainable energy solutions. Attendees had the opportunity to engage in insightful discussions, network with industry leaders, and explore innovative strategies for integrating solar power into modern infrastructure.

The event marked a significant step toward advancing green energy adoption, reinforcing the commitment to a more sustainable and energy-efficient future.

Workshop on Agri-Photovoltaic Technology in Odisha

A three-day workshop on Agri-Photovoltaic Technology was successfully conducted from February 22nd to 24th at the Swimming Pool Hall, Centurion University of Technology and Management (CUTM), Odisha. The event was jointly organized by the Skill Council for Green Jobs (SCGJ) and EY India as part of the TISA project, supported by GIZ India, in association with Centurion University and the Institution Innovation Council (an initiative of the Ministry of Education).

The workshop focused on the integration of solar energy with agriculture, highlighting innovative approaches to achieving sustainability in the sector. Industry experts shared valuable insights on renewable energy solutions, enabling participants to enhance their knowledge and explore the potential of Agri-Photovoltaic technology.

The event served as a significant platform for discussions on sustainable energy practices, reinforcing the role of solar power in transforming the agricultural landscape.

Solar Panel Installation Competition Showcases Green Energy Innovations

The Solar Panel Installation Competition successfully concluded with expert evaluations by Mr. Raushan Kumar and Mr. Prem Prakash Bharti from the Skill Council for Green Jobs (SCGJ). Their assessments ensured precision in the installation of both Solar Panels and Hydrogen Electrolyzers, highlighting the growing emphasis on skill development in the renewable energy sector.

A key highlight of the event was an insightful session by Mr. Prem Prakash Bharti, featuring a live demonstration on integrating Hydrogen Electrolyzers with Solar Panels via a Microgrid. This demonstration provided participants with a practical understanding of real-world renewable energy applications.

The competition was further supported by **h2e**, which sponsored the state-of-the-art Microgrid and Electrolyzer system. The event concluded with awards presented to the top performers, reinforcing the

Agri-Photovoltaic Technology Workshop in Delhi

The Skill Council for Green Jobs and EY India organized a two-day workshop on Agri-Photovoltaic Technology in Issapur, Najafgarh, Delhi, on February 17-18th. The event, part of the TISA project supported by GIZ India, focused on the role of Agri-Photovoltaic technology in achieving land-neutral and dual-use solar applications. The workshop covered fundamentals of APV, operations, grid integration, regulatory frameworks, procurement strategies, and business models for successful deployment.

Workshop on Agri-Photovoltaic Technology Successfully Held in Pune

The Skill Council for Green Jobs and EY India held a two-day workshop on Agri-Photovoltaic (APV) Technology in Pune, as part of the TISA project. The event focused on integrating solar energy with agriculture and promoting sustainable solutions under the Land-Neutral and Dual-Use New & Innovative Solar Applications (NISA) initiative. The workshop brought together experts, policymakers, and stakeholders to discuss the future of Agri-Photovoltaics in India.

Floating Solar Technology Workshop Held in Kochi

A two-day Floating Solar Technology Workshop was held in Kochi, India, on February 27th-28th, 2025, under the TISA project, supported by GIZ India. The workshop focused on promoting Land-Neutral and Dual-Use New & Innovative Solar Applications (NISA) across India. Participants discussed Floating Solar PV (FPV), Agrivoltaics (APV), and Building-Integrated PV (BIPV) technologies, gaining insights into solar innovation and sustainability. Key sessions covered site selection, design considerations, components, installation, and construction practices. A field visit to a 100 MW FPV installation at NTPC Kayamkulam was a highlight.

Floating Solar Workshop Concludes Successfully in Gandhinagar

A two-day workshop on Floating Solar Technology was held at the Gujarat Energy Research & Management Institute in Gandhinagar, India, under the TISA project. The event focused on advancing Land-Neutral and Dual-Use New & Innovative Solar Applications, policy support, R&D collaboration, and capacity-building initiatives. 38 professionals were trained and certified, providing industry insights and skill development for India's renewable energy transition.

Urban Photovoltaics Workshop Held in Gurugram

On March 5th and 6th, 2025, Skill Council for Green Jobs and EY India hosted a two-day workshop on Urban Photovoltaics Technology, which was supported by GIZ India. The event aims to promote land-neutral and dual-use new and innovative solar applications in urban settings, with an emphasis on policy assistance, R&D collaboration, and capacity building. Key takeaways included an overview of Urban PV, technological breakthroughs, operations, maintenance, and future trends.

Workshop on Agri-Photovoltaics in Guwahati

The Skill Council for Green Jobs and EY India organized a two-day workshop on Agri-Photovoltaic (APV) Technology in Guwahati, Assam, on March 27–28, 2025. In order to promote land-neutral and dual-use new and innovative solar applications, GIZ India provided assistance to the Ministry of New and Renewable Energy. The workshop's main topics were capacity-building programs, R&D cooperation, and legislative assistance for solar-powered agricultural solutions

Agri-Photovoltaic Technology Workshop Kottayam

The Skill Council for Green Jobs and EY India organized a two-day workshop on Agri-Photovoltaic (APV) Technology in Guwahati, Assam, on March 27–28, 2025. In order to promote land-neutral and dual-use new and innovative solar applications, GIZ India provided assistance to the Ministry of New and Renewable Energy. The workshop's main topics were capacity-building programs, R&D cooperation, and legislative assistance for solar-powered agricultural solutions

India-Australia Partnership Advances Solar PV Training Initiative

In a significant step toward enhancing solar PV workforce development, the Skill Council for Green Jobs (SCGJ), Smart Energy Council (Australia), and the National Solar Energy Federation of India (NSEFI) held a strategic meeting at the SCGJ office in Delhi. The discussion focused on implementing a co-designed "Training of Trainers" (ToT) program, aligned with international job qualification standards in the solar PV energy sector.

This initiative follows the commitment made by Australian Prime Minister Anthony Albanese on November 19, 2024, during the G20 summit in Rio de Janeiro, Brazil, where he announced Australia's partnership with SCGJ and the private sector to train 2,000 Indian solar technicians. In line with this commitment, SCGJ signed a tripartite Memorandum of Understanding (MoU) on February 28, 2025.

The meeting aimed at leveraging Australia's expertise in solar training to enhance India's workforce readiness. The collaboration marks a crucial step toward scaling up skill development in renewable energy, reinforcing the shared commitment of both nations to a clean energy future.

Panel Discussion – International Conference and Exhibition on Smart Energy and Smart Mobility

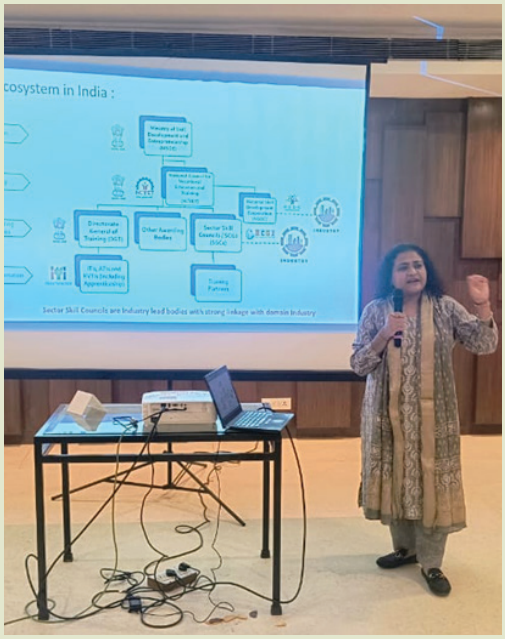
On March 21, 2025, a panel discussion was successfully organized and coordinated as part of the International Conference and Exhibition on Smart Energy and Smart Mobility. The event was jointly hosted by the India Smart Grid Forum (ISGF) and the Skill Council for Green Jobs (SCGJ), attracting participation from key stakeholders across the energy sector, including industry leaders, policy-makers, and technology innovators. The session addressed the global shift toward sustainable energy, emphasizing the urgency of reducing carbon emissions, modernizing energy systems, and implementing cutting-edge technologies to enable a low-carbon future.

SCGJ Participates in Electric Freight Transition Forum

The Skill Council for Green Jobs (SCGJ) participated in the “Pathways for a Just and Inclusive Transition to Electric Freight in India” forum, co-organized by C40 Cities and iFOREST under the Laneshift programme, with support from The Climate Pledge.The event brought together key industry leaders and experts to discuss strategies for ensuring a just and inclusive transition to electric freight in India. SCGJ CEO Arpit Sharma highlighted the importance of workforce skill development in enabling this shift. Additionally, EV truck driver Dhinesh Singh shared his first-hand experience, illustrating how electric freight improved his Key takeaways included policy actions to accelerate e-freight adoption, support mechanisms for small fleet operators and informal workers, skill development initiatives, and multimodal integration for cleaner logistics.

CHEMI TECH and PISSA Successfully Host Solar Meet-up in Noida

CHEMI TECH and PISSA successfully organized a Solar Meet-up at the Mosaic Hotel, Noida, bringing together industry experts, professionals, and stakeholders to discuss the latest developments in solar energy and skill development.



The event featured insightful presentations from Adani Solar, the Skill Council for Green Jobs (SCGJ), and the National Skill Development Corporation (NSDC). SCGJ and NSDC highlighted key skill development initiatives, including the National Apprenticeship Promotion Scheme (NAPS) and the JobX portal. NAPS, a government-backed program, provides financial incentives to employers to expand apprenticeship opportunities, while the JobX portal serves as a digital platform connecting skilled professionals with job opportunities in the green energy sector.

The meet-up also facilitated networking sessions, fostering industry collaborations, and included a lucky dip, adding an element of excitement. The event proved to be a valuable platform for knowledge-sharing and professional engagement.

Agri-Photovoltaics Workshop Successfully Concludes in West Bengal

The TISA project's Agri-Photovoltaic (APV) Technology Workshop, which was organized by SCGJ & EY India with assistance from GIZ India, came to a successful end. Participants gained increased knowledge about solar-powered farming and its sustainable effects from the session. The Ministry of New & Renewable Energy is assisted by GIZ India, a component of the Indo-German Energy Program, in advancing dual-use, land-neutral, and innovative solar applications throughout India. Highlights included discussions on the importance of APV in water conservation, energy efficiency, and land optimization, as well as in-depth insights into APV technology, seasonal crop selection, hands-on learning, finance, business models, and procurement strategies for APV projects.

Agri-Photovoltaic Workshop in Bengaluru

The Skill Council for Green Jobs and EY India held a three-day Agri-Photovoltaic (APV) Technology Workshop in Bengaluru, India, on March 24-26, 2025. The event, supported by GIZ India, aimed to promote Land-Neutral & Dual-Use New & Innovative Solar Applications (NISA) in collaboration with the Ministry of New & Renewable Energy. Key highlights included understanding Agri-PV technology, technical insights on site selection, installation, and grid integration, hands-on training in operation, maintenance, and troubleshooting, discussions on regulatory frameworks, and real-world demonstrations.

Renewable Energy Vs. Fossil Fuels: The Power Struggle Shaping Our Future

The Energy Dilemma: A Turning Point for Humanity

Energy fuels everything we do—from powering homes to running industries. For over a century, fossil fuels have dominated the global energy landscape, but rising concerns about climate change, air pollution, and resource depletion are pushing the world toward renewable energy. The debate isn't just about sustainability—it's about cost, reliability, and the future of our planet. So, where do we stand in the battle between fossil fuels and renewables? Let's break it down.

Fossil Fuels: The Backbone of Industrial Growth

Fossil fuels—coal, oil, and natural gas—have long been the lifeblood of modern economies. These energy sources, formed over millions of years from decayed organic matter, provide reliable and high-energy output. They have powered everything from factories to vehicles, making them a staple of economic growth.

However, fossil fuels come with a hefty price. Their extraction and combustion release massive amounts of greenhouse gases, contributing to climate change and environmental degradation. Not to mention, they are finite. As reserves dwindle, extraction becomes more expensive and environmentally destructive, leading to fluctuating energy prices and geopolitical tensions.

Renewables: The Rise of a Cleaner Future

Renewable energy sources—solar, wind, hydro, geothermal, and bioenergy—offer a promising alternative. Unlike fossil fuels, they harness natural, replenishable resources, making them more sustainable in the long run. Technological advancements and government incentives have significantly reduced costs, making renewables increasingly competitive.

The biggest advantage? Near-zero emissions. Solar and wind power, in particular, generate electricity without polluting the air or contributing to global warming. Hydroelectric power, while highly efficient, does have ecological concerns, such as the impact of dams on aquatic life. Biomass, if not carefully managed, can still contribute to deforestation and emissions.

The Reliability Factor: Can Renewables Keep Up?

One of the biggest criticisms of renewable energy is its intermittency. The sun doesn't always shine, and the wind doesn't always blow. In contrast, fossil fuel plants provide a steady, 24/7 energy supply. However, advancements in energy storage and smart grid technology are improving the reliability of renewables. Battery technology is evolving rapidly, allowing excess energy to be stored and used when needed.

Hydroelectric and geothermal energy provide a stable, consistent output, but they are location-dependent.

The challenge now is integrating these varied energy sources into a stable power grid that can handle fluctuations and demand surges.

The Cost Factor: What's More Affordable?

For decades, fossil fuels have been the cheaper option due to established infrastructure and subsidies. But the tide is turning. Solar and wind energy costs have plummeted, making them more affordable than coal or gas in many regions. The Levelized Cost of Electricity (LCOE) for renewables has dropped dramatically, and as battery storage improves, the economic argument for renewables becomes even stronger.

While initial investment in renewable infrastructure can be high, long-term savings on fuel costs and maintenance make renewables a financially sound choice. Governments worldwide are pushing clean energy policies, offering tax incentives and subsidies to accelerate the transition.

Jobs, Economy, and the Energy Transition

The fossil fuel industry has long been a significant job provider, particularly in coal mining, oil drilling, and energy production. However, automation and environmental regulations are leading to job losses in these sectors.

Renewable energy, on the other hand, is emerging as a job powerhouse. The solar and wind industries alone have created millions of jobs in installation, manufacturing, and maintenance. Countries investing in renew

ables are seeing economic benefits, especially in rural areas where wind farms and solar projects bring new opportunities.

Energy Security: Who Holds the Power?

Fossil fuel dependence has fueled geopolitical conflicts for decades. Oil-rich nations hold significant power over global markets, making energy security a concern for many countries.

Renewables, in contrast, offer energy independence. Sun and wind are available everywhere, reducing reliance on foreign energy imports. Countries investing in domestic renewable energy infrastructure are less vulnerable to political instability and price shocks in the fossil fuel market.

The Future of Energy: What's Next?

The world is moving toward a cleaner energy future, but the transition won't happen overnight. Many countries are adopting hybrid models, combining renewables with transitional fuels like natural gas to ensure a stable supply. Innovations in hydrogen energy, carbon capture, and energy storage will further accelerate the shift away from fossil fuels.

International agreements like the Paris Accord are pushing nations toward net-zero emissions goals, prompting policies that phase out coal and promote green alternatives. As technology advances, the economic and environmental benefits of renewables will only grow, making the future of energy increasingly clear.

The Path Forward

The battle between fossil fuels and renewable energy is more than an environmental debate—it's about the future of energy security, economic stability, and climate action. While fossil fuels have powered the world for centuries, their environmental costs and economic volatility make them unsustainable in the long term. Renewable energy, despite some challenges, is proving to be a viable, cost-effective, and sustainable alternative.

The transition is underway. The only question is: How fast can we make the switch?

Intelligent Optimization of Wind Turbines:AI in Renewable Energy

AI Generated Images

investment in renewable energy, wind farms are now a common sight worldwide. However, despite their promise, wind turbines face operational challenges such as inefficiency, maintenance costs, and variable wind conditions. This is where Artificial Intelligence (AI) is making a game-changing impact.

By integrating AI into wind energy systems, engineers and scientists are significantly improving turbine performance, efficiency, and reliability. AI-driven algorithms analyze data, predict failures, and optimize energy output—redefining the future of wind power. Let's explore how AI is transforming the wind energy sector and paving the way for smarter, more efficient renewable energy.

AI-Powered Predictive Maintenance: Preventing Downtime

One of the biggest hurdles in wind energy production is turbine maintenance. Traditional maintenance methods rely on scheduled inspections, which can be costly and ineffective. Unexpected breakdowns can lead to significant downtime and financial losses.

AI-driven predictive maintenance is changing the game. By using machine learning algorithms to analyze sensor data from turbines, AI can detect anomalies that indicate potential failures before they happen. For example, vibration analysis can reveal early signs of mechanical wear, while temperature sensors can detect overheating components. This allows operators to perform targeted maintenance, reducing costs and improving uptime.

Smart Wind Forecasting: Maximizing Energy Output

Wind energy is inherently unpredictable. Turbines depend on wind speed and direction, both of which fluctuate constantly. This variability makes it challenging to balance energy supply and demand.

AI-powered forecasting models are tackling this issue by analyzing historical weather data, satellite imagery, and real-time atmospheric conditions to predict wind patterns more accurately. Machine learning algorithms can anticipate changes in wind speeds hours or even days in advance, allowing grid operators to plan energy distribution more effectively. This leads to better grid stability and ensures that wind power can be integrated seamlessly into existing energy systems.

Adaptive Turbine Control: Smarter, More Responsive Systems

Traditional wind turbines operate with fixed settings, which can lead to inefficiencies when wind conditions change. AI is introducing adaptive turbine control systems that continuously adjust settings based on real-time data.

For example, AI algorithms can optimize blade pitch angles to capture the maximum amount of wind energy while reducing strain on the structure. AI can also adjust turbine yaw angles to align with shifting wind directions, further enhancing efficiency. These intelligent control systems ensure that turbines operate at peak performance while extending their lifespan.

The Future of Wind Power: Intelligence Meets Efficiency

AI-Driven Energy Storage Management

Wind energy has long been one of the leading solutions in the shift toward sustainable power. With advancements in turbine design and increased

One of the key challenges in renewable energy is storage. Wind power generation doesn't always align with energy demand, leading to surplus energy at times and shortages at others. AI is playing a crucial role in optimizing energy storage systems.

Advanced AI algorithms analyze energy production and consumption patterns to determine the best times to store excess energy in batteries or release stored energy into the grid. By enhancing storage efficiency, AI ensures that wind energy can be utilized when it's needed most, reducing reliance on fossil fuels and stabilizing energy supply.

Autonomous Drone Inspections: Enhancing Safety and Accuracy

Wind farms, especially offshore installations, require regular inspections to ensure operational efficiency.

Traditional inspections involve human technicians climbing turbines—a risky and time-consuming process. AI-powered drones equipped with high-resolution cameras and infrared sensors are revolutionizing turbine inspections. These drones autonomously scan turbine blades for cracks, erosion, and other defects. AI then processes the collected data to detect issues with pinpoint accuracy, allowing operators to address problems before they escalate. This approach enhances safety, reduces costs, and improves overall maintenance efficiency.

AI in Wind Farm Design: Optimizing Placement and Layout

AI is not only improving individual turbine performance but also optimizing entire wind farm designs. The placement of turbines within a wind farm significantly affects energy output, as turbines can create turbulence that impacts nearby units.

Using AI-based simulations, engineers can analyze wind flow dynamics and determine the optimal layout for new wind farms. These simulations account for terrain, wind patterns, and environmental factors to maximize energy capture. As a result, AI-driven wind farm planning ensures higher efficiency and reduces energy losses due to turbulence effects.

The Economic and Environmental Impact of AI in Wind Energy

The integration of AI into wind energy is not just about improving efficiency—it has significant economic and environmental benefits. Smarter turbines and optimized energy storage mean lower operational costs and higher returns on investment for wind farm operators. AI-driven predictive maintenance reduces the need for costly emergency repairs, while improved forecasting minimizes energy waste.

On the environmental front, AI-enhanced wind energy reduces dependency on fossil fuels, lowers carbon emissions, and makes renewable energy more viable as a primary energy source. By making wind power more reliable and cost-effective, AI is accelerating the global transition toward clean energy.

The Road Ahead: Challenges and Opportunities

While AI is revolutionizing wind energy, there are still challenges to address. Implementing AI-driven solutions requires significant investment in technology and infrastructure. Additionally, AI systems need vast amounts of high-quality data to function effectively, which can be a hurdle for older wind farms lacking modern sensors and connectivity.

Despite these challenges, the future of AI in wind energy is bright. Advances in machine learning, edge computing, and IoT (Internet of Things) will continue to enhance the capabilities of AI-driven wind turbines. As technology evolves, AI will play an even greater role in making wind energy a dominant force in the global energy landscape.

Micro-Hydro Systems: Small-Scale Hydropower for Rural Communities

AI Generated Images

Powering Rural Communities with the Force of Water

In many remote and rural areas, access to reliable electricity remains a challenge. Traditional power grids often fail to reach these communities due to geographical constraints and high infrastructure costs. As the world shifts toward cleaner, decentralized energy solutions, micro-hydro systems are emerging as a sustainable and practical solution for rural electrification. By harnessing the natural flow of small streams and rivers, micro-hydro technology provides a cost-effective, renewable energy source that empowers communities while preserving the environment.

What Are Micro-Hydro Systems?

Micro-hydro systems are small-scale hydropower installations that typically generate between five and one hundred kilowatts of electricity. Unlike large hydroelectric dams, these systems do not require massive reservoirs or extensive infrastructure, making them ideal for small communities, farms, and remote households. Micro-hydro operates by diverting a portion of a river or stream through a channel or pipe, leading the water to a small turbine. As the water flows through the system, it spins the turbine, which converts kinetic energy into mechanical energy. A generator then transforms this mechanical energy into electricity, which can be distributed to homes and businesses.

Advantages of Micro-Hydro for Rural Areas

Micro-hydro systems provide a sustainable and renewable energy source. Unlike solar or wind power, which depend on weather conditions, micro-hydro ensures a consistent energy supply since it relies on the continuous flow of water. This makes it one of the most reliable renewable energy sources available. Compared to other renewable energy solutions, micro-hydro systems have relatively low operational and maintenance costs. Once installed, they can operate for decades with minimal upkeep, requiring only periodic cleaning and inspection to maintain efficiency.

One of the biggest advantages of micro-hydro is its minimal environmental impact. Unlike large hydroelectric dams that can disrupt ecosystems and displace communities, micro-hydro systems have a much smaller footprint. They do not require large reservoirs or significant alterations to the landscape, allowing local wildlife and aquatic ecosystems to remain largely unaffected. For remote communities, micro-hydro provides energy independence. Many rural areas rely on expensive and polluting diesel generators for electricity. A decentralized micro-hydro system reduces dependency on fossil fuels and external power grids, enhancing energy security and fostering local economic development.

Designing a Micro-Hydro System: Key Considerations

For a micro-hydro project to be successful, several factors must be carefully evaluated. The power output of a micro-hydro system depends on the available water flow and the vertical drop, or head, of the water source. A site with a consistent and sufficient flow of water, combined with an adequate head, will generate the most efficient power output. The selection of the right turbine is also crucial to performance. Different types of turbines suit different flow and head conditions. Pelton turbines work best in high-head, low-flow conditions, while Francis turbines are ideal for medium-head, medium-flow setups. Crossflow turbines are most effective for low-head, high-flow situations. Choosing the right turbine ensures optimal performance and efficiency.

Energy storage and distribution are also essential considerations. Many micro-hydro systems are connected to battery storage or microgrids to ensure a steady supply of electricity. This setup allows communities to access power even during dry seasons or maintenance periods. Environmental and regulatory compliance is another crucial aspect of micro-hydro development. Before installation, conducting an environmental impact assessment ensures the system does not harm local water sources or aquatic life. Obtaining necessary permits and approvals from local authorities helps avoid legal complications and promotes sustainable implementation.

Micro-hydro systems have already made a significant impact in several parts of the world. In Nepal, a country with abundant rivers and mountainous terrain, micro-hydro plants have been installed in over two thousand five hundred villages, providing clean energy to thousands of households, schools, and small businesses. In Indonesia, community-led micro-hydro projects have empowered rural villages by providing affordable electricity. These systems are managed locally, creating jobs and fostering economic growth while reducing reliance on fossil fuels. In the Andean region of Peru, micro-hydro systems have brought electricity to indigenous communities that previously had no access to modern power sources. This has improved education, healthcare, and overall quality of life.

Challenges and Future Prospects

While micro-hydro technology offers numerous benefits, it also faces several challenges. The initial installation costs can be a barrier for some communities, despite the long-term cost savings. Seasonal variability in some rivers can affect energy production, making it essential to have backup solutions such as battery storage. Additionally, proper maintenance and troubleshooting require skilled personnel, which may not always be available in remote areas. To overcome these challenges, governments and non-governmental organizations are increasingly supporting micro-hydro development through subsidies, training programs, and financial incentives.

A Sustainable Path Forward

Micro-hydro systems represent a powerful solution for rural electrification, offering reliable, cost-effective, and environmentally friendly energy. As technology advances and support for renewable energy grows, micro-hydro will play a crucial role in bridging the energy gap for remote communities worldwide. Investing in small-scale hydropower can create a future where sustainable energy is accessible to all, regardless of location.

Energy Transition in Developing Countries: A Path to a Greener Future

The Global Energy Shift: A Defining Moment

Across the globe, a powerful transformation is unfolding. The era of fossil fuels is waning, giving way to a cleaner, more sustainable energy landscape. But while developed nations are rapidly embracing renewable energy, developing countries face a more complex journey. The energy transition here is not just about cutting carbon emissions—it's about lifting millions out of energy poverty, ensuring economic resilience, and protecting vulnerable ecosystems from the threats of climate change. Can these nations navigate the delicate balance between development and sustainability? The answer lies in innovation, investment, and international cooperation.

The Energy Divide: Bridging the Gap Between North and South

Energy consumption patterns reveal a stark divide. In developed countries, well-established grids, technological advances, and financial resources allow for seamless integration of renewable energy. Meanwhile, many developing nations grapple with unstable power supplies, outdated infrastructure, and chronic underinvestment in clean energy projects.

According to the International Energy Agency (IEA), nearly 770 million people—mostly in Sub-Saharan Africa and South Asia—still lack access to electricity. The per capita electricity consumption in the United States exceeds 13,000 kWh annually, whereas in countries like Ethiopia and Bangladesh, it falls below 500 kWh. This vast energy disparity highlights the urgent need for sustainable solutions tailored to developing economies. The challenge isn't just about replacing fossil fuels—it's about expanding energy access in a way that aligns with climate goals.

The Roadblocks to a Green Transition

Fragile Infrastructure and Limited Investment
For many developing nations, unreliable grids and lack of funding stand in the way of large-scale renewable energy adoption. Frequent blackouts and power failures deter foreign investment, slowing the shift to cleaner alternatives.

Fossil Fuel Dependence and Economic Realities
Many developing economies remain heavily reliant on fossil fuels—not just for energy but as a key revenue source. Coal mines, oil fields, and gas industries provide employment and government income, making it politically and economically challenging to pivot away from these resources.

The Energy Dilemma: Expansion vs. Sustainability
While developed nations focus on cutting emissions, many developing countries prioritize expanding electricity access as quickly and cheaply as possible. This often means turning to coal and diesel, which remain the most affordable short-term solutions despite their long-term environmental costs.

The Challenge of Intermittency
Solar and wind power depend on nature's rhythms, making energy storage and smart grids essential for reliability. Without the right infrastructure, transitioning away from fossil fuels could lead to energy insecurity.

A Renewable Revolution: Unlocking Opportunities

Despite the hurdles, developing nations have a unique advantage: they can bypass outdated energy models and adopt innovative, decentralized solutions from the outset.

Vast Renewable Resources
From Africa's endless sunshine to Latin America's mighty rivers and Southeast Asia's strong winds, developing nations are home to some of the world's richest renewable energy resources. Tapping into these could provide affordable, sustainable power for millions.

Off-Grid Solutions and Microgrids
Instead of relying on massive, centralized power plants, developing countries are increasingly turning to off-grid solutions. Small-scale solar and micro-hydro projects are lighting up remote villages, bringing power to places traditional grids have never reached.

Plummeting Renewable Energy Costs
The cost of solar panels has dropped by nearly 90% since 2010, making clean energy more accessible than ever. Investments in battery technology are also making renewable energy more reliable, solving one of its biggest limitations.

Global Cooperation and Climate Finance
International initiatives like the Green Climate Fund and the Paris Agreement are helping to bridge the financial gap, offering developing nations access to funding, technical expertise, and policy support for renewable energy projects.

Success Stories: Pioneers of the Energy Transition

Some developing countries are already proving that clean energy is not just a dream—it's a reality.

- **India:** With an ambitious goal of reaching 500 GW of non-fossil fuel energy capacity by 2030, India is a solar superpower. Its expansive solar parks and village electrification programs are bringing sustainable power to millions.
- **Kenya:** More than 80% of Kenya's electricity comes from renewable sources like geothermal and hydropower. The country is also pioneering off-grid solar solutions, making electricity more accessible and affordable.
- **Brazil:** With nearly 45% of its energy mix derived from renewables, Brazil is a leader in clean energy. Hydropower dominates, but wind and solar are growing rapidly, reducing reliance on fossil fuels.

Policy Priorities for a Just Energy Transition

Developing nations must adopt bold policies to accelerate their clean energy transitions. Governments can encourage investment in renewables through subsidies, tax incentives, and low-interest loans. Investing in grid modernization and energy storage will be crucial for integrating solar and wind power. Public-private partnerships can bring expertise and funding to clean energy projects, while international collaboration will be vital for knowledge-sharing and financial support.

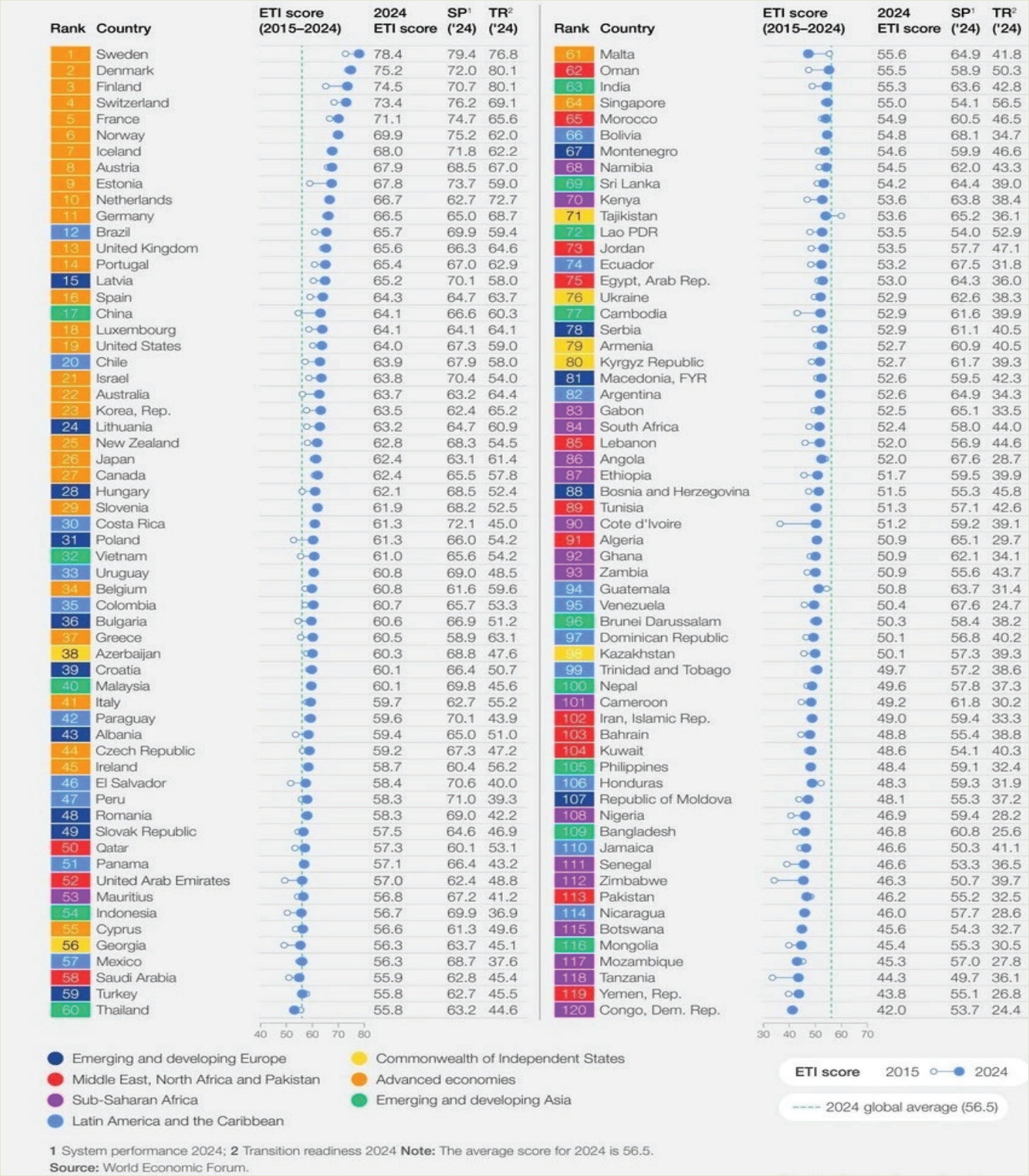
A Greener Tomorrow: The Future of Energy in Developing Nations

The path to a sustainable energy future is not without obstacles, but the rewards are undeniable. The transition to renewables offers not only a cleaner planet but also economic resilience, energy security, and a better quality of life for millions. By harnessing their natural resources, embracing decentralized solutions, and fostering international cooperation, developing nations can become leaders in the global green revolution. The energy transition is more than a technological shift—it is a movement toward a more just, equitable, and sustainable world.

Investments in some select developing countries

Country	Renewable Energy Investment	Capacity Additions
India	Ranked as the most attractive developing economy for renewable energy investment in 2023.	Significant growth in renewable capacity, with substantial investments in solar and wind energy.
China	Second-largest market for clean energy deployment, with significant growth opportunities.	Added 71.6 GW of wind power capacity in 2020, totaling 281 GW.
Chile	Ranked third among developing economies for renewable energy investment attractiveness.	Notable growth in renewable energy capacity, particularly in solar and wind sectors.
Philippines	Fourth in renewable energy investment attractiveness among developing economies.	Plans to add significant capacity, including a 3,260 MW offshore wind project.

Brazil	Fifth in renewable energy investment attractiveness among developing economies.	Added almost 11 GW of small-scale solar capacity in 2022.
Colombia	Plans to invest up to $316.5 million in 2025, with approximately $219 million allocated to solar energy projects.	Expected to bring around 300 megawatts of solar capacity into service.
Mali	Efforts to improve electricity access through solar power projects in rural areas.	Significant challenges remain, with only 53% of the population having electricity access as of 2021.



Rank	Country	ETI score (2015–2024)	2024 ETI score	SP[1] ('24)	TR[2] ('24)
1	Sweden		78.4	79.4	76.8
2	Denmark		75.2	72.0	80.1
3	Finland		74.5	70.7	80.1
4	Switzerland		73.4	76.2	69.1
5	France		71.1	74.7	65.6
6	Norway		69.9	75.2	62.0
7	Iceland		68.0	71.8	62.2
8	Austria		67.9	68.5	67.0
9	Estonia		67.8	73.7	59.0
10	Netherlands		66.7	62.7	72.7
11	Germany		66.5	65.0	68.7
12	Brazil		65.7	69.9	59.4
13	United Kingdom		65.6	66.3	64.6
14	Portugal		65.4	67.0	62.9
15	Latvia		65.2	70.1	58.0
16	Spain		64.3	64.7	63.7
17	China		64.1	66.6	60.3
18	Luxembourg		64.1	64.1	64.1
19	United States		64.0	67.3	59.0
20	Chile		63.9	67.9	58.0
21	Israel		63.8	70.4	54.0
22	Australia		63.7	63.2	64.4
23	Korea, Rep.		63.5	62.4	65.2
24	Lithuania		63.2	64.7	60.9
25	New Zealand		62.8	68.3	54.5
26	Japan		62.4	63.1	61.4
27	Canada		62.4	65.5	57.8
28	Hungary		62.1	68.5	52.4
29	Slovenia		61.9	68.2	52.5
30	Costa Rica		61.3	72.1	45.0
31	Poland		61.3	66.0	54.2
32	Vietnam		61.0	65.6	54.2
33	Uruguay		60.8	69.0	48.5
34	Belgium		60.8	61.6	59.6
35	Colombia		60.7	65.7	53.3
36	Bulgaria		60.6	66.9	51.2
37	Greece		60.5	58.9	63.1
38	Azerbaijan		60.3	68.8	47.6
39	Croatia		60.1	66.4	50.7
40	Malaysia		60.1	69.8	45.6
41	Italy		59.7	62.7	55.2
42	Paraguay		59.6	70.1	43.9
43	Albania		59.4	65.0	51.0
44	Czech Republic		59.2	67.3	47.2
45	Ireland		58.7	60.4	56.2
46	El Salvador		58.4	70.6	40.0
47	Peru		58.3	71.0	39.3
48	Romania		58.3	69.0	42.2
49	Slovak Republic		57.5	64.6	46.9
50	Qatar		57.3	60.1	53.1
51	Panama		57.1	66.4	43.2
52	United Arab Emirates		57.0	62.4	48.8
53	Mauritius		56.8	67.2	41.2
54	Indonesia		56.7	69.9	36.9
55	Cyprus		56.6	61.3	49.6
56	Georgia		56.3	63.7	45.1
57	Mexico		56.3	68.7	37.6
58	Saudi Arabia		55.9	62.8	45.4
59	Turkey		55.8	62.7	45.5
60	Thailand		55.8	63.2	44.6
61	Malta		55.6	64.9	41.8
62	Oman		55.5	58.9	50.3
63	India		55.3	63.6	42.8
64	Singapore		55.0	54.1	56.5
65	Morocco		54.9	60.5	46.5
66	Bolivia		54.8	68.1	34.7
67	Montenegro		54.6	59.9	46.6
68	Namibia		54.5	62.0	43.3
69	Sri Lanka		54.2	64.4	39.0
70	Kenya		53.6	63.8	38.4
71	Tajikistan		53.6	65.2	36.1
72	Lao PDR		53.5	54.0	52.9
73	Jordan		53.5	57.7	47.1
74	Ecuador		53.2	67.5	31.8
75	Egypt, Arab Rep.		53.0	64.3	36.0
76	Ukraine		52.9	62.6	38.3
77	Cambodia		52.9	61.6	39.9
78	Serbia		52.9	61.1	40.5
79	Armenia		52.7	60.9	40.5
80	Kyrgyz Republic		52.7	61.7	39.3
81	Macedonia, FYR		52.6	59.5	42.3
82	Argentina		52.6	64.9	34.3
83	Gabon		52.5	65.1	33.5
84	South Africa		52.4	58.0	44.0
85	Lebanon		52.0	56.9	44.6
86	Angola		52.0	67.6	28.7
87	Ethiopia		51.7	59.5	39.9
88	Bosnia and Herzegovina		51.5	55.3	45.8
89	Tunisia		51.3	57.1	42.6
90	Cote d'Ivoire		51.2	59.2	39.1
91	Algeria		50.9	65.1	29.7
92	Ghana		50.9	62.1	34.1
93	Zambia		50.9	55.6	43.7
94	Guatemala		50.8	63.7	31.4
95	Venezuela		50.4	67.6	24.7
96	Brunei Darussalam		50.3	58.4	38.2
97	Dominican Republic		50.1	56.8	40.2
98	Kazakhstan		50.1	57.3	39.3
99	Trinidad and Tobago		49.7	57.2	38.6
100	Nepal		49.6	57.8	37.3
101	Cameroon		49.2	61.8	30.2
102	Iran, Islamic Rep.		49.0	59.4	33.3
103	Bahrain		48.8	55.4	38.8
104	Kuwait		48.6	54.1	40.3
105	Philippines		48.4	59.1	32.4
106	Honduras		48.3	59.3	31.9
107	Republic of Moldova		48.1	55.3	37.2
108	Nigeria		46.9	59.4	28.2
109	Bangladesh		46.8	60.8	25.6
110	Jamaica		46.6	50.3	41.1
111	Senegal		46.6	53.3	36.5
112	Zimbabwe		46.3	50.7	39.7
113	Pakistan		46.2	55.2	32.5
114	Nicaragua		46.0	57.7	28.6
115	Botswana		45.6	54.3	32.7
116	Mongolia		45.4	55.3	30.5
117	Mozambique		45.3	57.0	27.8
118	Tanzania		44.3	49.7	36.1
119	Yemen, Rep.		43.8	55.1	26.8
120	Congo, Dem. Rep.		42.0	53.7	24.4

1 System performance 2024; **2** Transition readiness 2024 **Note:** The average score for 2024 is 56.5.
Source: World Economic Forum.

Employee of the Month – March 2025

Mr. Ankur Sood, Ms. Aditi Sharma, Mr. Shekhar Singh, and Ms. Reetika Kushwaha have been jointly recognized as the Employees of the Month for March 2025 in appreciation of their outstanding contributions to the PM Suryaghar Muft Bijli Yojana.

Recognition of Outstanding Contribution

Authored by Ankur Sood

In recognition of their exceptional contributions to the PM Suryaghar Muft Bijli Yojna, Mr. Ankur Sood, Mr. Shekhar Singh, Ms. Reetika Kushwaha, and Ms. Aditi Sharma have been jointly awarded the Employee of the Month for March 2025. Notably their extraordinary contribution to the PM Surya Ghar Muft Bijli Yogna project has enabled us to achieve the target well in time. With continued momentum, we are confident in successfully concluding the project ahead of the scheduled deadline of July 31, 2025.

In a short span of six months since the project's commencement in October 2024, SCGJ has already enrolled over 17,850 candidates and assessed more than 13,786 candidates (as of April 22, 2025) covering 16 States. This remarkable achievement represents approximately 87% of the total target, putting SCGJ firmly on track to achieve the remaining target well before the project deadline of July 31st, 2025.

Empowering the Future: SCGJ's Green Hydrogen Project Gains Momentum

The Team Strategy and Operations at SCGJ has successfully launched and executed a groundbreaking initiative under the "Green Hydrogen" project, a flagship mission spearheaded by the National Skill Development Corporation (NSDC). Awarded to SCGJ in August 2024 and implemented by October 2024, this pioneering initiative is paving the way for a clean energy future by building a skilled workforce in the rapidly evolving Green Hydrogen sector.

In a remarkable achievement, SCGJ has established 102 state-of-the-art Green Hydrogen Labs across 11 states in premier Government institutions, IITs, and other leading educational establishments. These labs serve as vital skill-building hubs, enabling practical training in a domain that represents the next frontier in sustainable energy.

Despite formidable challenges—including limited availability of essential components like Hydrogen Electrolyzers in India—SCGJ has remained committed to delivering impactful results. Within a short timeframe, the project has already enrolled 4,141 candidates under Short-Term Training (STT) mode and 998 under Recognition of Prior Learning (RPL) mode, totaling an impressive 5,139 trained individuals to date.

The project, scheduled for completion by March 2025, is a testimony to the dedication and expertise of the implementation team: Mr. Ankur Sood, Mr. Shekhar Singh, Ms. Reetika Kushwaha, and Ms. Aditi Sharma, under the strategic guidance of Mr. Vibhash Trivedi, Mr. Kamal Saxena and Mr. Girish Balasubramanyam.

SCGJ had been entrusted with an ambitious target to skill out of 19,500 candidates SCGJ has successfully enrolled 5,139 candidates —across the following six specialized Job Roles:

1. Green Hydrogen Plant Entrepreneur

2. Green Hydrogen Plant Junior Technician – Desalination

3. Green Hydrogen Plant Junior Technician – Power Sources

4. Green Hydrogen Plant Junior Technician – Storage

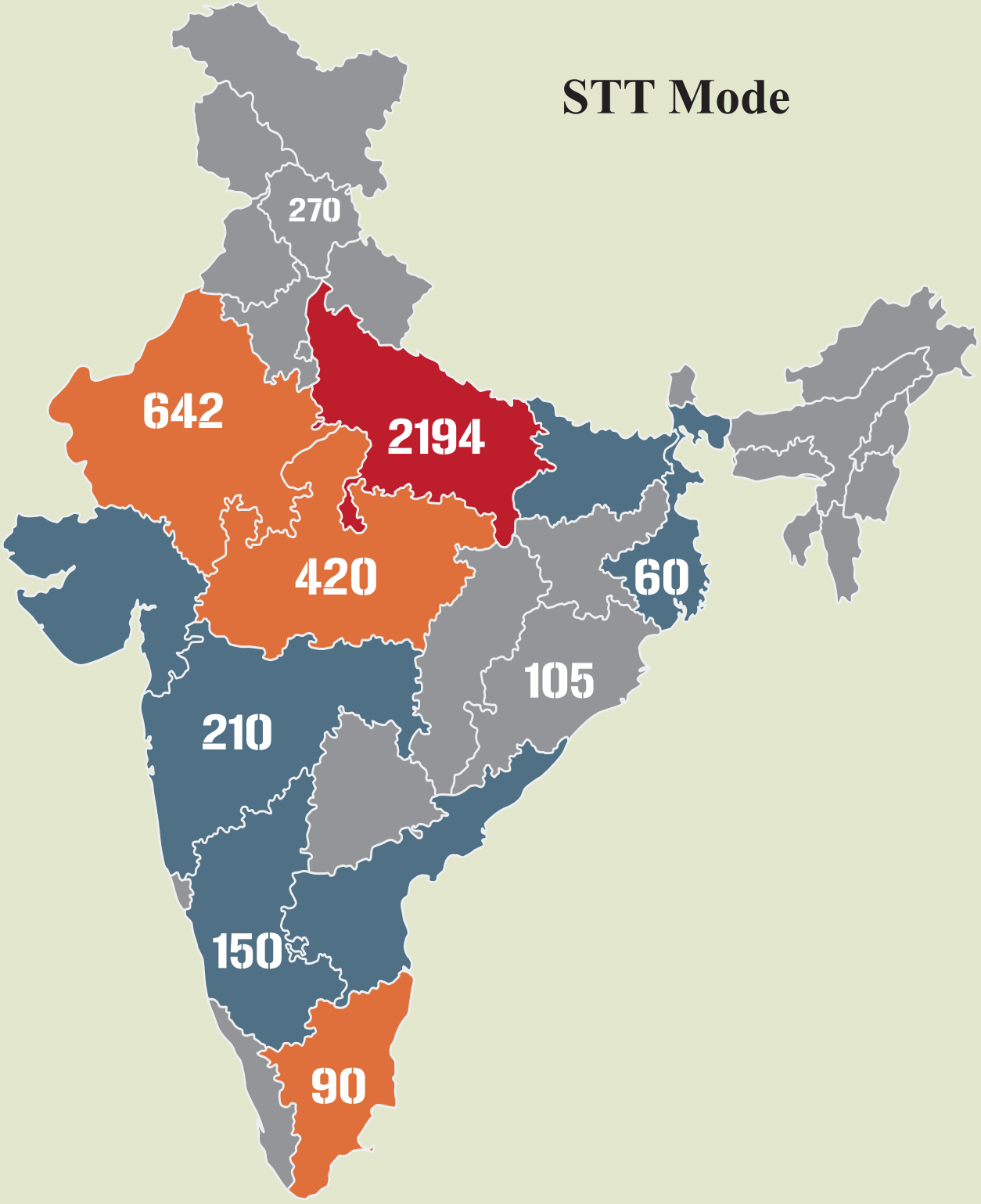
5. Green Hydrogen Plant Junior Technician – Electrolyzer

6. Green Hydrogen Plant Technician

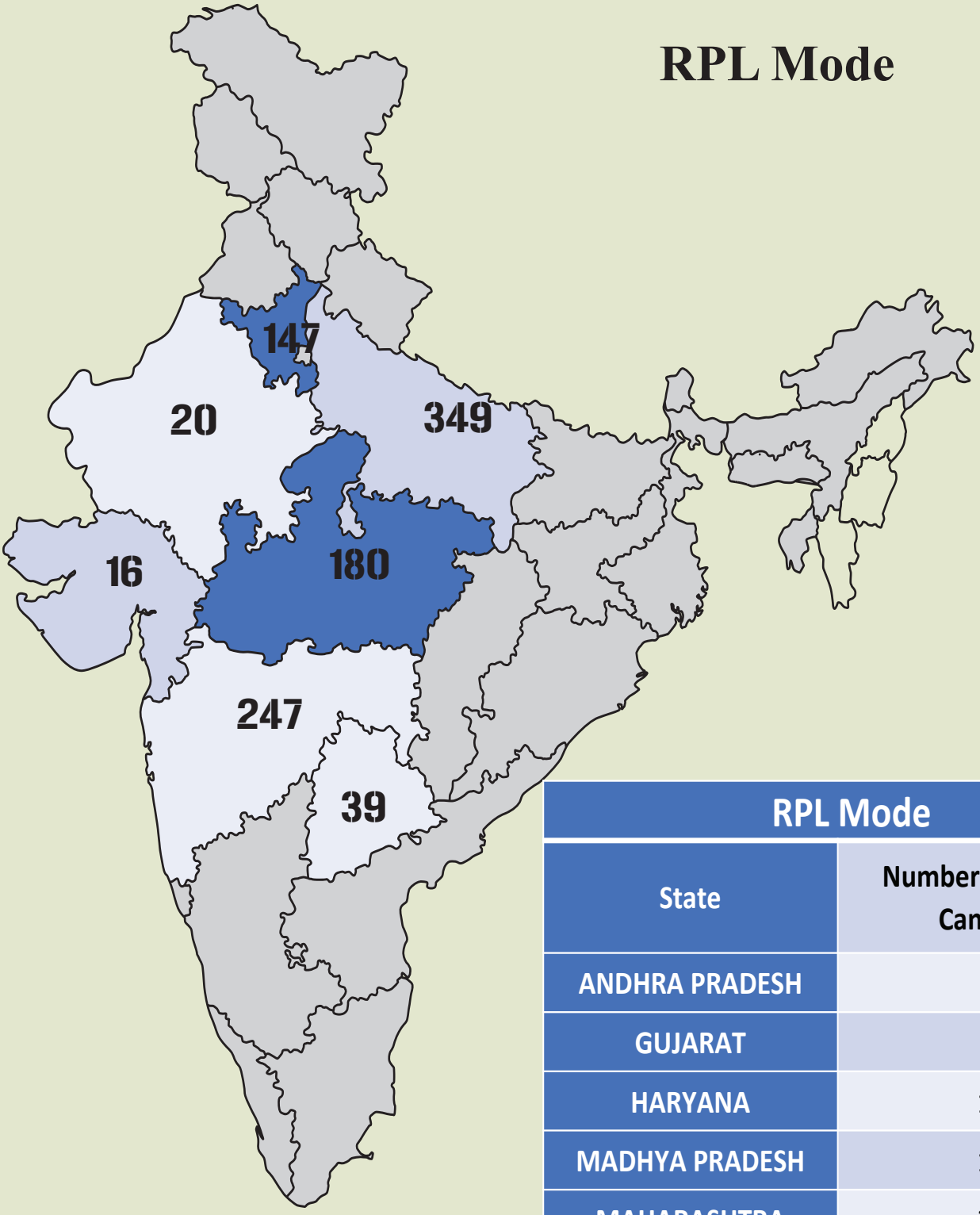
This project not only marks a significant step in India's commitment to clean energy and green jobs but also reflects SCGJ's unwavering focus on excellence, innovation, and nation-building through skill development.

STT Mode		
Sr. no	State	Number of Enrolled Candidates
1	HARYANA	270
2	KARNATAKA	150
3	MADHYA PRADESH	420
4	MAHARASHTRA	210
5	ODISHA	105
6	RAJASTHAN	642
7	TAMIL NADU	90
8	UTTAR PRADESH	2194
9	WEST BENGAL	60
Grand Total		4141

STT Mode



RPL Mode



RPL Mode	
State	Number of Enrolled Candidate
ANDHRA PRADESH	39
GUJARAT	16
HARYANA	147
MADHYA PRADESH	180
MAHARASHTRA	247
RAJASTHAN	20
UTTAR PRADESH	349
Grand Total	998

Latest /Revised Qulification Packs

S.No	Qualification Pack	Level	QP Code
1	Approaches to Carbon Accounting	4.5	NM-4.5-ES-03450-2024-V1-SCGJ
2	Fundamentals of Business Development for Hydrogen Fuel Cell	5.5	NM-5.5-ES-03453-2024-V1-SCGJ
3	Fundamentals of ESG Compliance	4.5	NM-4.5-ES-03451-2024-V1-SCGJ
4	Fundamentals of Hydrogen Fuel Cell	4	NM-04-ES-03452-2024-V1-SCGJ
5	Small Hydro Power Plant Technician	4	QG-04-ES-03678-2025-V1-SCGJ

Editors of this Issue

Daniel P
International Academy for Green Energy
(Division of SCGJ)

Tamanna Khan
Retainer
Skill Council for Green Jobs

Follow us on

www.sscgj.in