ICSE 2025

Conference Report

7th International Conference on Sustainability Education

SUSTAINABILITY EDUCATION FOR GREEN JOBS

September 17 & 18, 2025
India Habitat Centre, New Delhi, India

MOBIUS FOUNDATION

7th International Conference on Sustainability Education (ICSE) 2025
Conference Report

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International Conference on Sustainability Education (ICSE) 2025

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Contents

Contents

Preface

The 7th International Conference on Sustainability Education (ICSE) 2025, held under the theme "Sustainability Education for Green Jobs," marked another important milestone in the ongoing journey of promoting education as a driver of sustainable development. Building on the legacy of previous ICSE conferences, ICSE 2025 deepened the global discourse on aligning education systems with the evolving needs of the green economy, bringing together diverse voices committed to creating a more sustainable and equitable future.

The ICSE 2025 theme, "Sustainability Education for Green Jobs" underscores the urgent need to align education with emerging employment opportunities in renewable energy, energy efficiency, eco-tourism, sustainable agriculture, the circular economy, and other green sectors. To fully harness these opportunities, it is essential to proactively address the gaps in existing education and training systems. This involves equipping youth with the technical expertise, problem-solving abilities, and critical thinking skills required for green jobs; fostering innovation and entrepreneurship by encouraging students and young professionals to develop creative green solutions and establish enterprises contributing to the circular and sustainable economy. Equally important is ensuring equity and inclusion so that green jobs are accessible to all, particularly marginalized communities thereby supporting a just and equitable transition to a sustainable, green economy.

Objectives of ICSE 2025:

- Showcase Best Practices: Present successful models for integrating sustainability into education and training programs, with a specific focus on green skills development.
- Insights on Green Job Opportunities: Provide information on green jobs, career pathways, and prospects for skills development.
- Facilitate Collaboration: Create a platform for educators, policymakers, employers, and young professionals to develop effective solutions for green skills training.
- Foster Youth Leadership: Empower youth to become agents of change and advocates for sustainable development, contributing to a circular economy and social well-being.

The conference served as a vibrant platform for educators, policymakers, researchers, industry leaders, and youth to exchange ideas, share innovations, and explore pathways for integrating sustainability into education, training, and employment. The sessions at ICSE 2025 examined how education can equip learners with the knowledge, skills, and values required for meaningful participation in the transition towards a low-carbon, resource-efficient, circular, biodiversity-conscious, and inclusive economy. The deliberations of the conference was conducted through plenaries, panel discussions, workshops, fire-side chats, lightening talks and Sustainability Samvad, fostering rich discussions on defining green skills, advancing STEM and vocational training, promoting green entrepreneurship, and ensuring inclusivity in the emerging green job market. These also underscored the need for collaboration between education systems, industry, and policy frameworks to support the growing demand for green competencies.

The ICSE 2025 reinforced the strong alignment of sustainability education with key global and national priorities, particularly Sustainable Development Goals (SDGs) 4 and 8, the Paris Agreement, and India's National Education Policy (NEP) 2020. By highlighting the intersections of education, technology and workforce development, the conference contributed to a shared understanding of how sustainability education can drive both environmental resilience and economic growth.

The outcomes and insights captured in this report reflect the collective efforts of all participants who contributed their experiences, research, and vision. As ICSE continues to evolve as a movement for sustainability education, 2025 version stands out for its focus on action inspiring educational transformation that prepares youth for the green jobs of today and tomorrow.

Agenda

Day 1: 17 September | Wednesday

08:30-09:30	Registration
09:30-11:00 Stein Auditorium	Inaugural Ceremony • ICSE Journey of 6 years: Lookback video • Welcome Song: GAV school children • Lighting of the lamp and inauguration: all dignitaries on the dais **Welcome & Introduction** • Dr. Ram Boojh, Advisor, Mobius Foundation **Special Address** • Mr. Praveen Garg, IAS (Retd.), President, Mobius Foundation **Guest of Honour's Address** • Dr. Benno Boer, Chief, Natural Sciences Unit, UNESCO South-Asia Regional Office, New Delhi • Mr. Pradip Kumar Das, Chairman & Managing Director, IREDA Limited, New Delhi **Chairman's Address** • Mr. Pradip Burman, Chairman, Mobius Foundation **Chief Guest's Address (Recorded)** • Shri Bhupender Yadav, Hon'ble Minister for Environment, Forest and Climate Change, Government of India
11:05-11:10	Exhibition Inauguration
11:10-11:30	Tea/Coffee Break Charminar Area
11:30-12:30 Stein Auditorium	Plenary 1: Setting The Agenda: Sustainability Education For Green Jobs **Chair & Moderator** • Mr. Kartikeya Sarabhai, Founder Director, CEE **Panellists** • Ms. Judy Braus, Executive Director, Global Environment Education Program, USA (Recorded) • Prof. Prithvi Yadav, President & Vice Chancellor, Sir Padampat Singhania University, Udaipur, Rajasthan • Mr. Sunil Jain, Chairman, Skill Council for Green Jobs (SCGJ), MSDE, India • Mr. Alan Egbert, CEO, World Class Learning Systems, Dubai • Dr. Joseph Sapienza, Higher Education Leader & Keynote Speaker, Italy

12:30-13:30 Stein Auditorium	Plenary 2: From Vision To Action: Cultivating A World Ready For Green Jobs And Entrepreneurship **Chair** • Dr. Benno Boër, Chief, Natural Sciences Unit, UNESCO South-Asia Regional Office, New Delhi **Moderator** • Dr. Neha Midha, Programme Officer, UNESCO, New Delhi **Panellists** • Dr. Jagdish Bakan, (IFS), DFO and Wildlife Warden, Hosur, Tamil Nadu, India) • Ms. Barsha Lekhi, Programme Officer, UNESCO Kathmandu, Nepal • Ms. Bhavya George, Programme Coordinator- Climate Change, Keystone Foundation, Coimbatore • Dr. Prabhas Pande, Professor of Geology (Retd.), University of Delhi
13:30-14:20	Networking Lunch Charminar Area
14:20-14:30	Lightning Talk- Influencer Anuj Ramatri
14:30-14:40	Special Address- Shri Ajay Kumar, DGM, Bank of India
14:30-15:30 Stein Auditorium	Plenary 3: Technology And Ai: Driving Green Careers With Ai Innovations **Chair & Moderator** • Dr. Shailaja Donempudi, Distinguished Scientist, Business Development Group, CSIR, New Delhi **Panellists** • Mr. Gareth Dyke, Director- Sales & BD, 4Evolution, UK (virtual) • Dr. Ibrahim Hafeezur Rehman, Dean, Academic Advancement, Research & Development and Consultancy and Director, School of Sustainability, NAMTECH • Dr. Manish Modani, Principal Solution Architect, NVIDIA, Bengaluru
14:30-15:30 Amaltas Hall	Film Screening: "Wake Up Planet Earth" by David Richardson Language: English
15:30-16:30	Plenary 4: Greening The Jobs And Careers **Moderator** • Ms. Manisha Choudhary, National Coordinator UN- PAGE, UNEP **Keynote Speakers** • Mr. Arpit Sharma, CEO, Skill Council for Green Jobs, MSDE, India

Stein Auditorium	**Panellists** • Mr. Ashok Bonam, Asia Regional ALCBT Project Coordinator, GGGI • Mr. Tomas Stenström, Senior Specialist, Employment-Intensive Investment, ILO • Dr. Reva Prakash, Environment Policy and Resource Efficiency Advisor, GIZ • Ms. Zeenat Niazi, Chief Advisor, Development Alternatives • Dr. Shailly Kedia, Director, Sustainable Development and Outreach, TERI • Prof. Dr. Varsha Gupta, Head (Research), NIFT
15:30-16:00 Amaltas Hall	Sustainability Samvad 1 Ms. Raffaela Folli, Professor of Linguistics, Ulster University, UK *In Conversation with* Mr. Richard McDonald, Executive Director, R Futures Group, Switzerland
16:00-16:30 Amaltas Hall	Sustainability Samvad 2 Dr. Rajendra Singh, Waterman of India and President, Peoples' World Commission on Drought & Flood *In Conversation with* Mr. Pradip Burman, Chairman, Mobius Foundation
16:30-17:00	Tea/Coffee Break Charminar Area
17:00-17:25 Stein Auditorium	Fireside Chat: A Documentary on Planetary Boundaries Introduction by Ms. Jessica Gill, Sr. Research Associate, Mobius Foundation **Moderator** • Ms. Sarah Jacob, Foreign Correspondent, FRANCE 24, New Delhi • Mr. Robin Roy, Film Director *In Conversation With* • Mr. Pradip Burman, Chairman, Mobius Foundation
17:25-17:30 Stein Auditorium	Soft Launch of the Book on "Environmental Milestones of India" by Dr Erach Bharucha
17:30-18:30	Plenary 5: Building Green Skills: Educational Challenges And Opportunities For The Global South **Welcome** • Ms. Susmita Chanda, Programme Coordinator, SASEANEE, CEE **Moderator** • Ms. Madhavi Joshi, Sr. Program Director, CEE, Ahmedabad

12:30-13:30 Stein Auditorium	**Chair** • Mr. Kartikeya Sarabhai, Founder Director, CEE, Ahmedabad **Panellists** • Ms. Sharizad Dahlan, Director, ISTIC-UNESCO, Malaysia • Mr. Arpit Sharma, CEO, Skill Council for Green Jobs, MSDE, India • Dr. Suresh Gautam, HOD, Dept. of Development Education, Kathmandu University School of Education, Nepal • Dr. Bhola Ram Gurjar, Director, NITTTR, Chandigarh • Dr. Subarna Sivapalan, Associate Dean, RKE, University of Nottingham Malaysia, Co-Chair, UNESCO Chair in International Education and Development (Virtual) • Dr. Presha Ramsarup, President EEASA and Director, CREL, University of Witwatersrand, South Africa (Virtual)
17:30-18:30 Amaltas Hall	Recommendation Committee Meeting
18:30-19:30 Stein Auditorium	Plenary 6: STEM For Sustainability: Innovating A Greener Tomorrow **Moderator** • Mr. Dilip Surkar, Executive Director, Vikram A Sarabhai Community Science Centre, Ahmedabad **Panellists** • Dr. Kiran Bhujun, Director, Ministry of Tertiary Education & Scientific Research, Govt. of Mauritius • Ms. Sharizad Dahlan, Director, ISTIC-UNESCO, Malaysia • Dr. Tabassum Jamal, Chairperson, ZSF, New Delhi • Mr. Aunali Rupani, Founder, Arm Research, Ohio, USA • Dr. Swapna Gurla, Research Scientist, Department of Pharmacology, University of Medicine and Dentistry, Rutgers University, New Jersey, USA
19:30-19:40 Stein Auditorium	An Evening with Dr. Purnima Devi Barman, Champion of The Earth Awardee- UN's Highest Environmental Honor & Wildlife Biologist, Aaranyak, Assam *Conflict to Co-existence- Story of Hargila Army*
19:40-20:00 Stein Auditorium	Cultural Evening by GAV Students
20:00 onwards	Networking Dinner Charminar Area

Day 2: 18 September | Thursday

08:00-09:00	Registration
09:00-10:00 Stein Auditorium	Plenary 7: Youth For Earth Conclave And Award Ceremony **Moderator** • Mr. Bhavesh Swami, Lead, Clean Energy Policy & Engagements, CRP **Welcome Address** • Mr. Aditya Pundir, Director, Climate Reality Project India & South Asia **Introductory Remarks** • Dr. Atoho Jakhalu, Director, Climate Studies and Knowledge Solutions Centre, Govt. of Nagaland Launch of Comic Book on Everyday Climate Change authored by Mr. Nikhil Kamat, Content & Communication Strategist, and National Coordinator - Communications, The Climate Reality Project Awards Distribution and Showcase of Winning Projects Felicitation of Jury Members Vote of Thanks
10:00-11:00 Stein Auditorium	Plenary 8: Powering Sustainable Job Creation With Circular Solutions Introduction by Ms Priyanka Sharma, Head- Programs & Partnerships, Mobius Foundation **Moderator** • Dr. Sudheer Shukla, Head, Think Tank, Mobius Foundation **Keynote Speaker** • Mr. Amit Verma (IFS), Director, Green Transition, Environment and Climate Change, Niti Aayog, Govt. of India **Panellists** • Dr. Shailaja Donempudi, Distinguished Scientist, Business Development Group, CSIR, New Delhi • Mr. P S Sodhi, Senior Director, CEE, Ahmedabad • Mr. Ramnath Vaidyanathan, AVP, Godrej Good & Green, Godrej Industries Group, Mumbai • Dr. Rachna Arora, Director, Climate Change & Circular Economy, GIZ, Delhi
10:00-11:00	Special Session: Mission LiFE: Green Jobs Through Sustainable Lifestyles **Chair & Moderator** • Dr. Erach Bharucha, Director, BVIEER, Pune

Amaltas Hall	**Keynote Address** • Dr. Vivek Saxena (IFS), PCCF (Wildlife & Chief Wildlife Warden), Government of Haryana **Panellists** • Dr. Vasanti Rao, DG, Centre for Media Studies (CMS) & Director, CMS VATAVARAN • Ms. Nidhi Ralhan, Principal Strategist, Forum for the Future • Dr. Sagar Datir, Scientist, The Naroji Godrej Centre for Plant Research (NGCPR), Pune • Dr. HVC Chary Guntupalli, Scientist E, LiFE Cell, MoEFCC, New Delhi • Dr. Saurabh Upadhyay, Scientist D, MoEFCC, New Delhi
11:00-11:30	Tea/Coffee Break Charminar Area
11:30-12:30	Plenary 9: Too Many To Sustain?
Stein Auditorium	**Powertalk on Population Stabilization as a Key Driver for Quality Employment and Sustainability** Prof. Dr. Sonali Kar, Dept. of Community Medicine, KIMS, KIIT University In Conversation With Mr. Pradip Burman, Chairman, MF **Panel Discussion: Showcasing Experiences from Ground Zero** **Moderator** • Ms. Shilpa Nair, Lead and State Head- UP, PFI **Panellists :** • Ms. Shail Kumari, ASHA, Trivediganj, Barabanki District • Ms. Sapna Tiwari, Staff Nurse, Community Health Centre, Trivediganj, Barabanki District • Dr. Amit Kumar, Medical Superintendent, Community Health Centre, Chhapiya, Gonda District • Mr. B.K. Jain, Associate Lead-Programme Implementation, PFI • Mr. Richard Boustred, Country Director, Janani
12:30-13:20	Networking Lunch Charminar Area
13:20-13:30	Lightning Talk- Influencer Aalekh Kapoor

13:30-14:30 Stein Auditorium	Plenary 10: Blue Economy, Blue Jobs: Transforming Livelihoods **Moderator** • Dr. Vinita Apte, Founder President, TERRE Policy Centre, Pune **Chair** • Vice Admiral (Retd.) Sunil Anand, AVSM, NM **Panellists** • Mr. Manuel Cira-Felix, Senior Advisor, Citizen of the Ocean, France • Ms. Shweta Khare Naik, Executive Director, Jane Goodall Institute India & Member of UNESCO–IOC Group of Experts on Ocean Literacy • Dr. Suprava Patnaik, Principal Advisor, Climate Action Initiatives, CYSD
14:30-15:00 Amaltas Hall	Parallel Session: Film Screening: "wake Up Planet Earth" By David Richardson Language: Hindi
14:30-15:00	Tea/Coffee Break Charminar Area
14:30-17:00 Amaltas Hall	Parallel Session: Workshop On Skill Development For Green Jobs- "next-gen Green Career Pathways: Explore, Connect, Grow" **Welcome** • Ms. Priyanka Sharma, Head- Programs & Partnerships, Mobius Foundation, New Delhi **Why the Green Economy Matters** • Ms. Giorgia Varisco, Chief of Youth Development and Partnership at UNICEF YuWaah **Role of Youth in Building a Sustainable Future** • Mr. Philip Mathew KM, Senior Director, Livelihoods, Magic Bus India Foundation **Climate Education: Empowering Youth for Green Careers & Startups** • Dr. Karuna Singh, Regional Director- Asia, EarthDay.Org, Kolkata **Pathways in the Green Economy** • Mr. Aalekh Kapoor, Influencer (Digital Media) • Ms. Priyanka Bhandari, Program Manager, Climate Collective (Start-ups; Circular Economy) • Ms. Pooja Malhotra, Founder, ReJean (Sustainable Fashion) • Mr. Alok Rai, Founder, Alarth Green, (Renewable Energy, Climate Tech) • Mr. Manik Dhingra, Co-Founder, Shoonya (Solid Waste Management) • Ms. Prerna Prasad, Founder & CEO, Ecoplore (Sustainable Tourism)

	• Mr. Mohd Suhail, Founder, Athar Packaging (Sustainable Products & Packaging) • Ms. Pratishtha Kumari, Mobius Foundation (Development Sector/Research) • Mr. Shitiz Jha, Climate Trends (Climate Finance/ESG) **Workshop: Leveraging LinkedIn– From Crafting Your Green Profile to Unlocking Opportunities** • Ms. Tanya Jha, Client Solutions Manager, LinkedIn
15:00-16:00 Stein Auditorium	Plenary 11: Climate Action & Green Jobs In Emerging Sectors **Chair & Moderator** • Mr. Anirban Ghosh, Professor & Head, Centre for Sustainability, Mahindra University, Hyderabad, Telangana **Keynote Speaker** • Shri Upendra Tripathy, Former Secretary, MNRE, and Founding Director General Emeritus, International Solar Alliance, Government of India **Panellists** • Dr. Kalpana Seethepalli, Director of Sustainable Finance for Asia Pacific, Middle East and Africa, Deutsche Bank, Singapore • Dr. Swarna V Kanth, Chief Scientist and Head, Centre for Human and Organisational Resources Development, CSIR-CLRI & Professor, Academy of Scientific and Innovative Research, Anna University, Chennai • Dr. Anil Gupta, Project Director AdaptDMIR, ICARS IIT Roorkee NCR Campus, Greater Noida
16:00-17:00 Stein Auditorium	Plenary 12: Agro-ecosystem & Biodiversity: Pathways For A Greener Tomorrow **Moderator** • Ms. Archana Chatterjee, Programme Manager, IUCN-India, New Delhi **Keynote Speaker** • Dr. S.P. Yadav, Director General, International Big Cat Alliance, New Delhi **Panellists** • Mr. Benoit Theau, Director and Consultant, IGAPURA, Initiatives Climat, France • Mr. Nandou Tenkeu Muller, Acting CEO, KEMIT ECOLOGY & active member of Initiatives Climat network, Cameroon • Mr. Yogesh Sawant, Chief Thematic Program Executive, BAIF
16:00-17:00 Amaltas (Rudraksha & Kadamba)	Recommendation Committee Meeting

17:00-18:00 Stein Auditorium	Plenary 13: Concluding Plenary **Presentation & Adoption of Recommendations** • Dr. Erach Bharucha, Director, BVIEER, Pune • Dr. Ruchi Sachan, Asst. Professor, Miranda House, New Delhi **Closing statements from thought leaders and partners** • Ms. Karima Kadaoui, Member, The Club of Rome and Co-Founder & Executive President, Tamkeen Foundation for Human Development, Morocco • Mr. Aditya Pundir, Director, Climate Reality Project India & South Asia **Concluding Remarks by** • Mr. Praveen Garg, President, Mobius Foundation • Mr. Pradip Burman, Chairman, Mobius Foundation **Address by Chief Guest** • Dr. Rajendra Singh, Waterman of India and President, Peoples' World Commission on Drought & Flood **Vote of Thanks** • Dr. Ram Boojh, ICSE Convener & Advisor, Mobius Foundation
18:00 onwards	Networking Dinner Charminar Area

COMMITTEE FOR DRAFTING RECOMMENDATION (CDR)
SCHEDULE OF COMMITTEE MEETINGS

September 17, 2025	1730-1830	Venue: Amaltas Hall
September 18, 2025	1600-1700	Venue: Kadamba Hall

Committee Members

- Chairperson: Dr. Erach Bharucha, Director, BVIEER, Pune
- Co-Chair: Prof. R.N. Yadav, Advisor (Research and International Affairs), Mansarovar Global University, Bhopal

Members

- Dr. P.K. Biswas, Professor Emeritus & Advisor to Pro Chancellor Office, Jagran Lake City University
- Prof. Roopinder Oberoi, Professor, Kirori Mal College, University of Delhi
- Dr. Neelima Jerath, Former Director General, Pushpa Gujral Science City, Kapurthala
- Dr. Abdhesh Gangwar, Focal Point, RCE Srinagar, J&K
- Dr. Raffaella Folli, Professor of Linguistics, Ulster University, UK
- Dr. Deepti Rai, Program-Lead, Mobius Foundation
- Dr. Suraj K Tripathy, Associate Dean, School of Chemical Technology, KIIT
- Ms. Nidhi Ralhan, Principal Strategist, Forum for the Future, New Delhi
- Dr. Divya Agarwal, Assistant Professor, Jesus and Mary College, University of Delhi

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The Climate Reality Project INDIA & SOUTH ASIA
Jane Goodall Institute India
VIKRAM A SARABHAI COMMUNITY SCIENCE CENTRE
SCGJ SKILL COUNCIL FOR GREEN JOBS
TERRE Policy Centre
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Magic Bus

Dignitaries Speak

"We face two urgent challenges, Climate Change & the need for inclusive economic growth. Green Jobs provide the bridge between these goals. They protect the environment, fuel the economy & strengthen social well-being. Education is the heart of this transition equipping our youth with the skills & values needed for a sustainable future."

"I would like to express my sincere appreciation to the Mobius Foundation, its Chairman Mr. Pradip Burman, President Mr. Praveen Garg, and Advisor Dr. Ram Boojh for their leadership and vision in advancing sustainability education. This conference is a testament to their enduring commitment to action and collaboration, and I wish the Foundation continued success in its mission to inspire collective change."

Shri Bhupender Yadav
Hon'ble Minister for Environment, Forest and Climate Change
Government of India

"This conference has blossomed into a vibrant crucible of ideas; a space where educators, policymakers, and youth come together to reimagine learning for a sustainable tomorrow. This reminds us that sustainability is not an elective subject; it is a way of thinking and living."

Mr. Pradip Burman
Chairman
Mobius Foundation

"Green jobs are not just about employment; they are about dignity, purpose, and giving our youth the chance to be co-creators of a sustainable future. In a world transitioning towards renewable energy and responsible growth, these opportunities empower young minds to align livelihood with environmental stewardship and social equity."

Mr. Praveen Garg, IAS (Retd.)
President
Mobius Foundation

"This is the only conference on sustainability education that comprehensively brings together ideas, actions, and partnerships, thus shaping Education for Sustainable Development."

Dr. Ram Boojh
Convenor, ICSE & Advisor
Mobius Foundation

"Education will play a vital role in the transformation to a green economy. It is through awareness and learning that citizens will understand both their rights and their duties toward sustainability, ensuring that development becomes not only faster, but wiser and greener."

Mr. Pradip Kumar Das
Chairman & Managing Director, IREDA Ltd.

"Sustainability education must shift from theory to measurable action, where students learn by doing and demonstrating outcomes."

Shri Upendra Tripathy
Former Secretary, MNRE, and Founding Director General Emeritus,
International Solar Alliance, Government of India

"A sustainable education system begins with love for nature and respect for nature. If your passion and actions remain steadfast, then sustained commitment will, in turn, ensure your continued happiness."

Dr. Rajendra Singh
Waterman of India and President
Peoples' World Commission on Drought & Flood

"Our education system, from schools to universities, must build flexibility and foundational competencies, and then reinforce them with short-term, task-specific courses. In this journey, South–South cooperation will be vital for sharing models and strengthening our collective capacity."

Mr. Kartikeya Sarabhai
Founder Director
CEE

"If we teach our children to look for the beauty in systems, in communities, and in themselves, then maybe one day we will realize we are no longer destroying the ecosphere that sustains life."

Ms. Karima Kadaoui
Member, The Club of Rome & Co-Founder & Executive President
Tamkeen Foundation for Human Development, Morocco

"I extend my sincere appreciation to the Mobius Foundation for its visionary leadership in keeping sustainability education at the forefront of global and regional dialogue. The theme of this year's conference speaks to the urgent challenges of our time and the opportunities that lie ahead as we face the mountain impacts of the global climate crisis."

Dr. Benno Boër,
Chief, Natural Sciences Unit,
UNESCO South-Asia Regional Office, New Delhi

"The workforce of the future must know how to trace materials, measure carbon footprints, and design for reuse; without these skills, India risks falling behind in the global shift toward sustainable value chains."

Mr. Amit Verma (IFS)
Director, Green Transition
Environment and Climate Change
Niti Aayog, Govt. of India

"Our planet is 70% ocean, yet we continue to ignore how carelessly we treat it. The future of our people depends on how wisely we use our natural resources."

Vice Admiral (Retd.) Sunil Anand
AVSM, NM

"The future of our food systems and the future of our forests are inseparable; when agriculture protects biodiversity, it safeguards the well-being of people, wildlife, and the planet alike."

Dr. S.P. Yadav
Director General
International Big Cat Alliance, New Delhi

ICSE Impact and Timeline (2019–2024)

6 Editions | 9500+ Participants | 500+ Distinguished Guest | 5000+ Schools & Institutions Engaged | 115+ Insightful Sessions | 50+ Country Participation | 140+ Reputed Partners | 64+ Exhibitions | 160+ Poster & Paper Presentations | 3000+ Youth Engagements | 750+ Youth for Earth Participants | 35+ Youth Project Awardees

2019: Launch of ICSE

A Global Platform for Sustainability Education

- 850+ Distinguished Guests
- 100+ Eminent Speakers: 20% International & 80% National Speakers
- 30+ Countries Representation
- 38+ Partner Organisations
- Conference Architecture: 6 Special Plenaries | 20 Parallel Sessions | 45+ Oral Presentations | 27+ Poster Presentations | 5 Best Paper Awards Distributed | 30 Exhibitors | 50+ Volunteers
- Youth for Earth Campaign Launched

2020: Online Edition of ICSE

- 1500+ Distinguished Guests (online)
- 30+ Eminent Speakers: 33% International & 67% National Speakers
- 8+ Countries Representation
- 10+ Partner Organisations
- Conference Architecture: 4 Forums (Sustainability Education and Population Stabilisation) | Youth Conclave
- Youth for Earth Campaign: 100 Registrations | 54+ Projects Received | 5 Best Projects Awarded

2021: 3rd ICSE (Virtual)

- Theme: "Education for Ecosystem Restoration"
- 1800+ Distinguished Guests (online)
- 60+ Eminent Speakers: 17% International & 83% National Speakers
- 20+ Countries Representation
- 25+ Partner Organisations
- Conference Architecture: 4 Special Plenaries | 11 Parallel Sessions | E-Poster Presentations | 2 Best E-Posters Recognized

2022: 4th ICSE (Hybrid)

- Theme: "Building Connections & Partnerships for A Sustainable Future"
- 500+ Distinguished Guests | 1000+ Virtual Participants
- 50 Eminent Speakers: 40% International & 60% National Speakers
- 8+ Countries Representation
- 30+ Partner Organisations
- Conference Architecture: Pre-Conference – Youth Conclave | 5 Special Plenaries | 17 Parallel Sessions | 16+ Oral Presentations | 9+ Poster Presentations | 5 Best Paper Awards Distributed | 50+ Volunteers
- Youth for Earth Campaign: 150 Registrations | 30 Projects Received | 7 Best Projects Awarded

2023: 5th ICSE

- Theme: "Educating for Climate Action and Sustainability"
- 750+ Distinguished Guests | 1200+ Virtual Participants
- 200+ Eminent Speakers: 12% International & 88% National Speakers
- 15+ Countries Representation
- 42+ Partner Organisations
- Conference Architecture: 11 Special Plenaries | 9+ Oral Presentations Awarded | 3+ Posters Awarded | 50+ Volunteers
- Youth for Earth Campaign: 195 Registrations | 75 Projects Received | 11 Best Projects Awarded

2024: 6th ICSE

- Theme: "Greening Education for a Sustainable Future"
- 550+ Distinguished Guests | 800+ Virtual Participants
- 100+ Eminent Speakers: 28% International & 72% National Speakers
- 20+ Countries Representation
- 40+ Partner Organisations
- Youth for Earth Campaign: 75+ Projects Received
- Conference Architecture: 11 Special Plenaries | 12 Samvad | 14 Exhibitors | 50+ Volunteers
- Youth for Earth Campaign: 306 Registrations | 75 Projects Received | 10 Best Projects Awarded

ICSE 2025 Overview

ICSE 2025 is organized as a Carbon-Neutral Event, ensuring that all emissions generated during the conference were measured and offset through verified sustainability initiatives.

106 Eminent Speakers at ICSE

Female Speakers

Global Speakers

32 Partners Organisation

Leading organizations, academic institutions, and corporates contributed to shaping ICSE 2025 through shared vision and expertise.

15 Exhibitors

Informative booths showcasing innovative solutions, sustainable technologies, and green enterprises.

100+ Volunteers

A vibrant team of young volunteers ensured smooth coordination, logistics, and participant engagement and content creation of all sessions.

12 Recommendation Committee Members

A distinguished group of advisors curated the conclave's recommendations, guiding future directions for sustainability education and green jobs.

Sessions Formats at ICSE

13	Plenaries
15	Exhibitors
3	Special Sessions
2	Sustainability Samvad
1	Fireside Chat
2	Lightning Talks
3	Book Launches
3	Power Talks
2	Flim Screenings

Youth for Earth 2025

Y4E initiative has received an inspiring response from change-makers across South Asia reaffirming the commitment of youth towards sustainability and climate action

290+
Registrations from India, Bangladesh, Nepal, Bhutan, Maldives, and Sri Lanka

77
Project Submissions - Innovative ideas from youth changemakers

8 Winners
Across Junior & Senior categories

8 Jury Members
Experts guiding the selection process

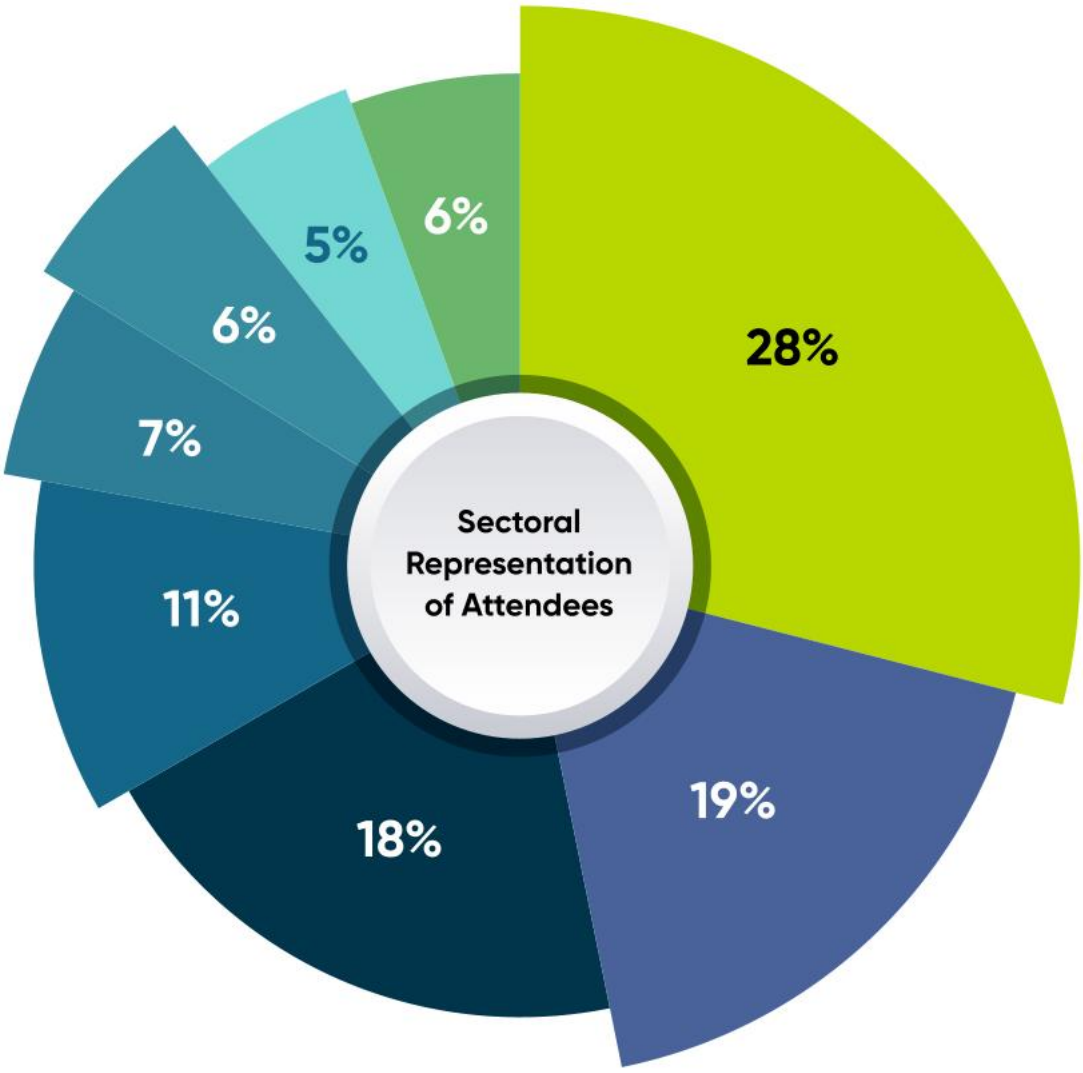
Participants Demographics

800+
Distinguished Guest

49%
Women leaders

100+
Volunteers

450+
Virtual Participation



Day 1

17 September 2025

Inaugural Ceremony

The 7th International Conference on Sustainability Education (ICSE) commenced with the ceremonial lighting of the lamp by the esteemed dignitaries including Mr. Pradip Burman, Chairman, Mobius Foundation, Mr. Pradip Kumar Das, Chairman & Managing Director, IREDA Limited, New Delhi, Dr. Benno Boër, Chief, Natural Sciences Unit, UNESCO South-Asia Regional Office, New Delhi, Mr. Praveen Garg, President, Mobius Foundation, Dr. Ram Boojh, Convenor, ICSE & Advisor, Mobius Foundation.

A 'Look Back' video was played to showcase ICSE's six-year journey, illustrating how the conference has contributed to advancing sustainability education both in India and internationally.

Reflecting the conference theme, "Sustainability Education for Green Jobs," and the belief that nurturing awareness begins in childhood, students from Gyan Bharti Vidyalaya (GAV) performed a 'Classical Raga,' gracefully setting the tone for the inspiring sessions that followed.

Lamp Lighting at the Inaugural

Performance by GAV Students

Welcome & Introduction

Dr. Ram Boojh, Convenor, ICSE & Advisor, Mobius Foundation

Dr. Ram Boojh, Convenor, ICSE & Advisor, Mobius Foundation

Dr. Ram Boojh warmly welcomed all dignitaries, and participants to the 7th International Conference on Sustainability Education (ICSE) 2025, acknowledging the leadership and inspiration of Mr. Pradip Burman and Mr. Praveen Garg of the Mobius Foundation. He extended special appreciation to Mr. Pradip Kumar Das reaffirmed IREDA's commitment to green employment, and Dr. Benno Boër of UNESCO for his long-standing partnership and contributions. He also acknowledged Dr. Rajendra Singh, the "Water Man of India," for his consistent and valued contribution creating a unique model for green skills. He also welcomed other key partners such as CEE, UNESCO, UNEP, PFI, Janini, Earth Day Network and Climate Reality Project for their enduring support.

Reflecting on the six-year journey of ICSE, Dr. Boojh highlighted its growth i.e. over 10,000 participants, 200 partners, and 100 sessions, and its role in shaping global sustainability discourse. Uniquely structured with plenaries, panel discussions, fireside chats, power talks, exhibitions, and special sessions, it remains one of the most comprehensive global events dedicated to sustainability education.

While elaborating on the theme of ICSE 2025 "Sustainability Education for Green Jobs," he emphasized on the link between education, skill development, and emerging green economy in the context of planetary crisis of climate change, biodiversity loss and pollution. These will drive the emergence of green jobs and careers requiring skilled workforce in many sectors.

> "In the midst of multiple crises, we must embrace limitless hope - hope for our planet, our youth, and the shared future we strive to sustain."
>
> ~Dr. Ram Boojh, Convenor

Special Address

Mr. Praveen Garg, IAS (Retd.), President, Mobius Foundation

Mr. Praveen Garg in his special address commended the progression of ICSE, noting its shift from dialogue to actionable outcomes over the years. Highlighting the theme "Sustainability Education for Green Jobs", he emphasized the urgency of equipping youth with new skills and mindsets for a rapidly transitioning global economy, noting India's projected need for over 8.5 million renewable energy jobs by 2050.

Mr. Praveen Garg, IAS (Retd.), President, Mobius Foundation

He underscored that green jobs represent not only employment but dignity, purpose, and engagement in shaping a sustainable future. He stressed that sustainability education must integrate principles of climate justice, advocating mechanisms like carbon or climate taxes to ensure the "polluter pays."

Mr. Garg highlighted the key initiatives by the Mobius Foundation, such as "Gyaan Kanya Shakti", which empowers rural girls through education and vocational training, and "Gyan Anant Vidyalaya", India's first environmental school integrating sustainability with learning. He also announced a landmark collaboration with Warner Bros. Discovery to produce a 10-episode documentary series on global environmental challenges, supported by Cambridge University and aimed at raising awareness and inspiring youth action.

Concluding with a call for individual responsibility and collective effort, he emphasized that true change begins with sustainable practices and that education remains the strongest bridge to a just and green future.

"With education as our compass and innovation as our engine, we can guide our youth into rewarding green careers and turn our words into real change."

~Mr. Praveen Garg

Guest of Honour's Address

Dr. Benno Boër, Chief, Natural Sciences Unit, UNESCO South-Asia Regional Office, New Delhi

Dr. Benno Boër underscored the urgency of addressing the triple planetary crisis such as biodiversity loss, pollution, and climate change exacerbated by growing social inequality. He stressed that sustainability education for green jobs must equip youth with both technical and entrepreneurial skills, enabling them to lead the transition toward a greener economy. The promotion of green incubators, hubs, and entrepreneurship education is essential to this transformation.

Dr. Benno Boër, Chief, Natural Sciences Unit, UNESCO South-Asia Regional Office

He urged educational institutions to lead by example; not only by teaching sustainability but by embedding it in their operations, transforming campuses into green, innovative spaces that engage their communities. There should be a deeper collaboration between governments, private sector, civil society, and international organizations to create education and training programs aligned with real labour market needs and sustainability-driven entrepreneurship.

He elaborated on UNESCO's "Greening Education Partnership," now active in over 80 countries, integrating sustainability into formal and informal education. This year, UNESCO-designated sites will serve as living laboratories for sustainability, linking education with green entrepreneurship and biodiversity conservation. Concluding, he applauded the Mobius Foundation for convening this dialogue and called upon the youth to be active changemakers, emphasizing that the green economy will be built through education, innovation, and collaboration.

> "The green economy is not discovered; it is built through education, innovation, and global collaboration."
>
> ~Dr. Benno Boër

Guest of Honour's Address

Mr. Pradip Kumar Das, Chairman & Managing Director, IREDA Limited, New Delhi

Mr. Pradip Kumar Das expressed his gratitude to the Mobius Foundation and delivered an insightful address on India's journey toward sustainable growth and renewable trans-formation. He began by highlighting India's unique position as one of the few nations with a dedicated Ministry for New and Renewable Energy (MNRE), a testament to the country's long-standing commitment to clean energy and environmental stewardship.

Mr. Pradip Kumar Das, Chairman & Managing Director, IREDA Limited

Tracing IREDA's evolution over nearly four decades, Mr. Das shared how the organization has supported 27 GW of renewable capacity and transitioned into a fully paperless enterprise, demonstrating that even a government entity can lead through innovation and discipline. He noted that India's renewable energy capacity has grown at an unprecedented pace, tripling in just eight years, and today ranks as the third largest globally.

Mr. Das emphasized that while economic development is vital, it must not come at the cost of the environment or social well-being. True progress, he argued, should be inclusive, equitable, and ecologically balanced. He also underscored that India aims for 500 GW of non-fossil fuel capacity by 2030, requiring ₹30 lakh crore in investment and creating millions of jobs. Education, innovation, and skill development will be the cornerstones of this transformation, with institutions like IITs and initiatives such as PM-KUSUM and the National Green Hydrogen Mission driving the progress.

Concluding his speech, Mr. Das reiterated that achieving net-zero by 2070 will require cohesive effort, discipline, and a deeply ingrained culture of sustainability values that organizations like the Mobius Foundation are actively nurturing.

"If the stakeholders of the green ecosystem work cohesively and responsibly, we can achieve our vision of a net-zero India by 2070. This is not just a policy goal, it is a collective moral responsibility that demands discipline, innovation, and unity of purpose."

~Mr. Pradeep Kumar Das

Chairman's Address

Mr. Pradip Burman, Chairman, Mobius Foundation

Mr. Pradip Burman, Chairman, Mobius Foundation

Mr. Pradip Burman delivered an inspiring inaugural address at the 7th ICSE. He warmly welcomed the guests and distinguished dignitaries, including Mr. Pradip Kumar Das, CMD of IREDA and Dr. Benno Boër from UNESCO, appreciating their contributions to renewable energy financing and biodiversity conservation.

Mr. Burman reflected on how the ICSE has evolved into a vibrant global platform where educators, policymakers, youth leaders, and innovators converge to reimagine learning for a sustainable future. This year's theme, "Sustainability Education for Green Jobs," he explained, is both timely and necessary, linking India's demographic potential to the urgent need for employment that supports ecological balance and climate resilience.

He emphasized that green jobs are not a distant dream but a present reality, spanning renewable energy, climate-smart agriculture, circular economy, and ecosystem restoration. To bridge the gap between education systems and the emerging green economy, he called for decisive, collective action.

Highlighting the Mobius Foundation's initiatives, Mr. Burman stated about Project Gyan Kanya Shakti, which digitally empowers rural girls in Uttar Pradesh and Madhya Pradesh, and the Mobius Young Climate Leaders for Himalayan Development Project, that nurture youth leadership in India's northeastern states. He also noted the role of the Foundation's think tank in driving research and advocacy for sustainability education.

Concluding, Mr. Burman urged participants to view sustainability not as a choice but as a way of life, reminding that the future of humanity depends on the actions taken today. By integrating education and innovation, he affirmed, the world can build a workforce that is both environmentally conscious and socially responsible.

> "The journey to a sustainable future is not the sole responsibility of governments or institutions—it is a collective endeavour. By educating for green jobs, we are not merely preparing youth for employment; we are preparing them to be capable custodians of our planet's future."
>
> ~Mr. Pradip Burman

Chief Guest's Address (Recorded)

Shri Bhupender Yadav, Hon'ble Minister for Environment, Forest and Climate Change, Government of India

The Hon'ble Minister began his address by expressing heartfelt gratitude to the Mobius Foundation, its Chairman - Mr. Pradip Burman, President - Mr. Praveen Garg, and Advisor - Dr. Ram Boojh, for their visionary leadership and steadfast commitment to advancing sustainability education in India. He commended the Foundation's consistent efforts in convening the International Conference on Sustainability Education, which has become a vital global platform for collaboration, innovation, and knowledge exchange in the field of environmental education.

Addressing the theme "Sustainability Education for Green Jobs," the Minister highlighted the urgent challenges humanity is facing today i.e. 'climate change' and 'need for inclusive economic growth' and asserted that green jobs form the bridge between these two imperatives. Such jobs, he noted, protect the planet, drive the economy, and promote social well-being. Central to this transition is education, which is the "heart" of sustainability, equipping youth with the technical skills, critical thinking, and ethical values required to build a resilient and equitable future. India's National Education Policy (NEP) 2020 embodies this vision by promoting skill-based, multidisciplinary, and vocational learning, preparing students to response effectively to a rapidly changing world.

Highlighting Government of India's achievement, the Minister cited that India has reached over 50% of its total installed electricity capacity from non-fossil fuel sources, including renewables, well ahead of its 2030 target, and it ranks fourth globally in terms of total renewable energy installed capacity. He also emphasized the success of key initiatives such as the National Green Hydrogen Mission, PM Surya Yojana, PM-KUSUM, and Amrit Jal Yojana. These initiatives are driving India's progress toward net-zero emissions by 2070 while simultaneously creating millions of green livelihoods.

He further emphasized the importance of inclusivity in this green transition. Women, youth, and marginalized communities, he said, must be at the heart of the movement, ensuring that the path to sustainability also advances equity and opportunity. He called for strengthening STEM and vocational education, fostering lifelong learning, and bridging the skills gap to meet the demands of the green economy.

He also commended the Mobius Foundation for its impactful initiatives in population stabilization - Project Aakar, which have reached nearly 1.5 crore people; Gyan Kanya Shakti program which empowers girls in 32 rural schools across Uttar Pradesh and Madhya Pradesh; and the Mobius Young Climate Leaders for Himalayan Development program, which nurtures environmental leadership across the eight northeastern states. These efforts demonstrate how education and community engagement can together create a more informed and capable green workforce.

The Minister also underscored the importance of collective partnerships among government, academia, civil society, and the private sector. No single institution can achieve the sustainability transition alone; it must be a collaborative effort that unites expertise and innovation.

In conclusion, he reminded the audience that sustainability education and green jobs are not merely about employment, but about nurturing responsible global citizens who will safeguard the future of humanity and the planet. He reaffirmed the Government of India's full commitment, through the Ministry of Environment, Forest and Climate Change, to fostering a thriving green workforce, and once again thanked the Mobius Foundation for organizing such a meaningful and forward-looking conference.

"Sustainability education for green jobs is not only about employment, it is about nurturing responsible global citizens i.e. our youth, who will be the torchbearers of a greener, more equitable tomorrow."

~Hon'ble Shri Bhupender Yadav

Plenary 1

Setting the Agenda: Sustainability Education for Green Jobs

Background

The accelerating climate crisis and global commitments to achieve the SDGs and net-zero goals have made sustainability central to education and workforce development. Green growth is now an imperative, demanding climate-smart skills, ecological literacy, and sustainability competencies across all professions. The ILO estimates that the green transition could create over 24 million new jobs worldwide by 2030, while in India, the sector could unlock $1 trillion in value by 2030 and $15 trillion by 2070, supporting inclusive growth and environmental resilience. Education, therefore, becomes the key enabler of this transition. The National Education Policy (NEP) 2020 emphasizes holistic, multidisciplinary, and skills-based learning that integrates sustainability, ethics, and experiential approaches to nurture responsible citizens. To meet the emerging demand for green jobs, curricula and capacity-building must be aligned with the realities of a green economy, going beyond awareness to develop practical expertise in renewable energy, sustainable design, waste circularity, biodiversity restoration, digital green technologies, and climate innovation.

The session set the tone for ICSE 2025, positioning sustainability education as the cornerstone of green jobs creation. The deliberations explored curriculum reforms, institutional innovations, and policy frameworks that can bridge the gap between sustainability aspirations and the future-ready skills needed to drive a greener economy and build a more resilient future.





Objectives

- To highlight the role of sustainability education in shaping future green careers and enabling climate-smart workforce development.
- To explore innovative models and best practices in embedding sustainability into curricula, training programs, and capacity-building initiatives.
- To discuss skills and competencies needed for professionals in green sectors, including technical expertise, ecological literacy, and ethical responsibility.

Speakers

Chair & Moderator:
Dr. Ram Boojh, Convenor, ICSE & Advisor, Mobius Foundation

Special Message:
Ms. Judy Braus, Executive Director, Global Environment Education Program, USA (Virtual)

Panellists:
Prof. Prithvi Yadav, President & Vice Chancellor, Sir Padampat Singhania University, Udaipur, Rajasthan
Mr. Sunil Jain, Chairman, Skill Council for Green Jobs (SCGJ), MSDE, India
Mr. Alan Egbert, CEO, World Class Learning Systems, Dubai
Dr. Joseph Sapienza, Higher Education Leader & Keynote Speaker, Italy

Summary


Dr. Ram Boojh, Convenor, ICSE & Advisor, Mobius Foundation

The Chair & Moderator of the session, Dr. Ram Boojh highlighted that the global green job landscape is expanding rapidly, the International Labour Organization (ILO) projects 24 million new jobs by 2030, with an additional 6 million through the circular economy. However, the LinkedIn Global Green Skills Report 2025 warns of a widening green talent gap by 2030, one in five jobs will face a shortage of green skills, growing to one in two by 2050. Job seekers with green competencies are significantly more employable, 55% more likely to be hired, with even higher rates in Western nations. In India, the Viksit Bharat 2047 Vision aims to create 35 million green jobs by India's centenary of independence. Agencies such as NITI Aayog and the Green Skills Council project major job shifts, especially with disruptive technologies like AI and quantum computing.





Dr. Boojh emphasized that achieving SDG 4.7 (Education for Sustainable Development) and SDG 8 (Decent Work and Economic Growth) will require significant advancements in the next five years. Grassroots innovation and India's creative economy also hold promise for expanding green employment, even as global competition in innovation remains intense.

> "By 2030, one in five jobs is projected to face a green talent shortage, and this gap could widen to one in two by 2050, making green skills the new hiring advantage."
>
> ~Dr. Ram Boojh

Ms. Judy Braus, Executive Director, Global Environment Education Program, USA

Ms. Judy Braus, in her video message, expressed gratitude to the organizers and emphasized the critical role of education in advancing careers for a green and blue economy. She highlighted that while technical and practical skills are essential, education systems must also cultivate transformative and soft skills such as empathy, creativity, collaboration, and critical thinking. Environmental and sustainability education bridges the gap between workforce needs and current educational systems by nurturing global citizens equipped to address climate and environmental challenges. She stressed the importance of a just transition, ensuring that sustainability efforts do not leave communities behind.

She cited examples such as the Harbor School in New York and the Transformative Skills Guide to illustrate effective models for preparing students for emerging green and blue economy careers. She urged for a stronger collaboration among educators, industries, and policymakers to embed sustainability across all levels of education. Emphasizing inclusivity, partnership, and innovation, she concluded that education is the most powerful catalyst to inspire hope, foster collective action, and drive social, economic & environmental transformation towards a sustainable future.

> "Education is not just a tool for learning, it is the hope that empowers people to act, to adapt, and to build a just and sustainable future."
>
> ~Ms. Judy Braus

Dr. Prithvi Yadav suggested that higher education institutions should adopt integrated sustainability frameworks that seamlessly connect campus operations with academic innovation. Strategic collaboration with sustainability experts and organizations can amplify these efforts, fostering shared learning and scalable impact. By transforming campuses into living laboratories, universities can showcase measurable sustainability outcomes that educate, engage, and inspire students, faculty, and surrounding communities.

Prof. Prithvi Yadav, President & Vice Chancellor, Sir Padampat Singhania University, Udaipur, Rajasthan





Dr. Yadav shared his experience on the transformation of Sir Padampat Singhania University (SPSU), Rajasthan, into a sustainable university. Over the past two years, SPSU has implemented a series of impactful sustainability initiatives, including waste reduction, installation of a biogas plant saving ₹50,000 annually, a solar power system saving ₹30 lakhs per year, and rainwater harvesting capturing 1.5 million litres annually. The university also established a kitchen garden producing organic crops, cutting food waste and operational costs. To institutionalize sustainability education, SPSU introduced two academic programs, B.Sc. in Applied Sciences (specialization in Sustainability Management) and an MBA in Sustainability Management, blending 60% sustainability concepts with 40% management principles.

"In just two years, we have transformed a traditional university into a sustainable one, proving that consistent effort and collective learning can turn vision into measurable impact."
~Dr. Prithvi Yadav

Mr. Sunil Jain, Chairman, Skill Council for Green Jobs (SCGJ), MSDE, India

Mr. Sunil Jain highlighted that the foundation for a sustainable and green-skilled future must be laid at the school level. Citing examples from the Mahabharata and Bhagavad Gita, he underscored the importance of initiating sustainability education early in life. He pointed out that in countries like China, even very young children are encouraged to think innovatively and practice environmental responsibility, while in India such awareness and discipline are still developing. Emphasizing the scale of India's energy consumption, he warned that habits such as waste segregation and energy conservation must be addressed through early education.

Mr. Jain further stressed that sustainable education must be hands-on and practical, rather than purely theoretical. Many schoolchildren, especially from underprivileged backgrounds, remain unaware of basic sustainability concepts such as solar energy, waste segregation, and water conservation. To bridge this gap, he advocated for the introduction of prototype labs in schools, the use of experiential learning tools, and nationwide awareness campaigns modelled on successful initiatives such as "Say No to Crackers." He concluded that true sustainability education must create a continuum of learning, from schools to universities, so that young people grow up equipped to lead India's green transition and contribute meaningfully to the global green economy.

"Sustainable education starts from within. Just teaching won't help; we need practical education that allows every child to see, touch, and understand how things work."
~Mr. Sunil Jain





Mr. Alan Egbert emphasized the urgency of embedding sustainability into education systems, preparing students for the demands of the green economy. While 21st-century skills like creativity, collaboration, and critical thinking are now widely recognized, sustainability has been neglected as an essential skill. Citing UNESCO surveys, he pointed out that over 70% of national curricula worldwide do not mention climate literacy, and a similar proportion of young people feel unprepared to address sustainability challenges.

Mr. Alan Egbert, CEO, World Class Learning Systems, Dubai

Mr. Egbert stressed that green jobs are not confined to one sector but will permeate every field, from energy and architecture to health and education, making sustainability education universally relevant. He admired India's progress through the National Education Policy (NEP) and NCERT's inclusion of climate change topics, but urged broader adoption of global frameworks like the UN's Greening Education Partnership. Building green schools, integrating environmental literacy into curricula, and training teachers effectively were identified as key steps. He concluded with a reminder of India's environmental legacy and urged educators to reignite that spirit of ecological responsibility in classrooms to nurture a generation of climate leaders.

"If we are not going to equip our students with the right skill set for green jobs, then there is very little scope for them to be successful in the future economy."

~Mr. Alan Egbert

Dr. Joseph Sapienza, Higher Education Leader & Keynote Speaker, Italy

Dr. Joseph Sapienza reflected on three key ideas related to sustainability, education, and systemic change, as outlined below:

- First, he questioned the prevailing economic framework, noting that even environmental disasters are counted as positive contributions to GDP. He emphasized the urgent need to rethink how progress is measured and to integrate sustainability meaningfully within economic systems.
- Second, he cautioned that "green thinking" has often become a fashion or a corporate strategy to access public funds rather than to drive genuine ecological transformation.
- Third, he introduced a visionary concept: the establishment of Bio-Design Universities. He argued that the architecture and design of educational institutions reflect a fragmented worldview that separates humans from nature. Since classrooms are often detached from natural surroundings, learning becomes less holistic and less effective. He suggested that integrating nature into learning spaces could significantly enhance well-being, recovery, and educational outcomes.





Dr. Sapienza requested organizations like Mobius Foundation to promote the transformation of campuses into living, nature-connected environments that merge ecological awareness with education.

> "We need to design universities where students learn in contact with nature, breaking the centuries-old wall between human learning and the natural world."
>
> ~Dr. Joseph Sapienza

Recommendations

1. Promote Green Skilling Ecosystems: Establish regional and sectoral Green Skill Hubs in collaboration with industry, academia, and government to align training with future job markets.

2. Bridge the Green Talent Gap: Introduce national certification programs and credentials for green skills to make the workforce globally competitive and adaptable to emerging technologies.

3. Empower and Support Teachers: Provide targeted capacity-building programs for teachers to integrate sustainability education effectively, while using technology and smart tools to ease their workload.

4. Leverage Technology Responsibly: Integrate AI, quantum, and digital tools in education and industry in ways that support sustainability rather than contribute to job displacement.

5. Strengthen Global and Institutional Collaboration: Partner with organizations such as UNESCO, ILO, and LinkedIn to align national strategies with international benchmarks for green growth and employment.

6. Establish Prototype Labs: Set up small-scale labs and digital learning tools in schools to demonstrate renewable energy, waste management, and sustainable practices.

7. Launch Campaigns: Initiate school-based awareness campaigns on sustainability themes such as "Say No to Plastic" and "Adopt Green Energy" to instil behavioural change.

8. Create a Green Learning Continuum: Ensure alignment between school, vocational, and higher education to develop progressive pathways for green skills and jobs.

9. Promote Bio-Design Education Spaces: Encourage the development of Bio-Design Universities and green campuses that blend architecture, nature, and learning to enhance creativity and well-being.

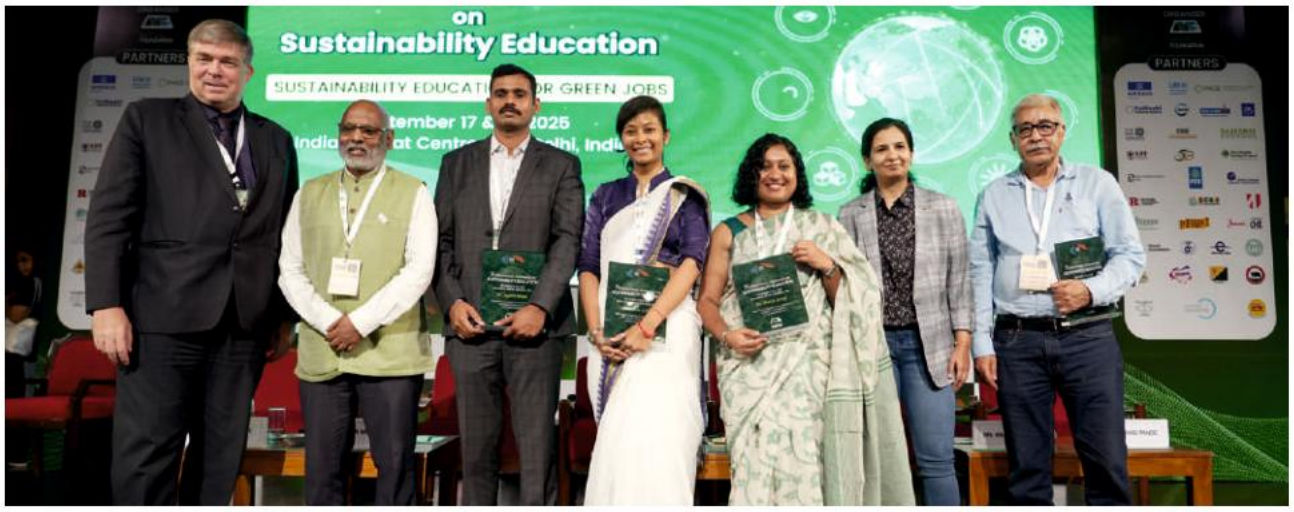




Plenary 2

In partnership with

From Vision to Action: Cultivating a World Ready for Green Jobs and Entrepreneurship



Background

UNESCO designated Biosphere Reserves provide unique spaces where the harmony between humans and nature comes to life. As living laboratories of sustainability, they demonstrate how conservation, education, and sustainable livelihoods can go together. By fostering biodiversity-based livelihoods and inclusive green skills, Biosphere Reserves offer scalable models for a nature-based economy. It recognizes the interconnectedness of human well-being and the health of ecosystems, integrating economic, social, and environmental factors.

In alignment with the theme of ICSE 2025 "Sustainability Education for Green Jobs", this session explored the role of Biosphere Reserve in supporting and generating green skills and green jobs.

Objectives

- To showcase how Biosphere Reserves serve as platforms for biodiversity-based livelihoods and sustainable entrepreneurship or green jobs.
- To discuss inclusive models that build skills, resilience, and opportunities for communities and youth in the green economy.
- To inspire collective action and partnerships linking education, biodiversity, and entrepreneurship.





Speakers

Chair:

Dr. Benno Boër, Chief, Natural Sciences Unit, UNESCO South Asia Regional Office, New Delhi

Moderator:

Dr. Neha Midha, Programme Officer, UNESCO, New Delhi

Panellists:

Dr. Jagdish Bakan (IFS), DFO and Wildlife Warden, Hosur, Tamil Nadu, India

Ms. Barsha Lekhi, Programme Officer, UNESCO Kathmandu, Nepal

Ms. Bhavya George, Programme Coordinator – Climate Change, Keystone Foundation, Coimbatore

Dr. Prabhas Pande, Professor of Geology (Retd.), University of Delhi

Summary

Dr. Benno Boër, Chief, Natural Sciences Unit, UNESCO South-Asia Regional Office

Dr. Benno Boër, Chair of the session emphasized the significance of showcasing professionals who have successfully built their careers around green jobs, spanning geology, environmental science, forestry, and community-led conservation. The session featured distinguished panellists from India and Nepal representing academia, government, and civil society, each contributing practical experiences in linking scientific research, traditional knowledge, and sustainable development. Dr. Boër noted that all the panellists had successfully built careers rooted in environmental stewardship, underscoring the growing relevance of sustainability-oriented professions in achieving global and local development goals. He also underscored the role of such platforms like ICSE to inspire youth, promote collaboration, and mainstream sustainability across professions and biosphere initiatives.

"The discussion today shows that collaboration across science, policy, and communities, is key to a sustainable future."

~Dr. Benno Boër

Dr. Neha Midha, Programme Officer, UNESCO, New Delhi

While moderating the session, Dr. Neha Midha, explored how UNESCO-designated biosphere reserves translate conservation vision into practical models for green economy and sustainable livelihoods. She emphasized that biosphere reserves are not only critical for biodiversity protection but also for demonstrating how people and nature can coexist harmoniously. She further requested the panelists to share diverse case studies illustrating how environmental stewardship, scientific research, and local innovation converge to create viable green jobs and sustainable enterprises.

"Every biosphere reserve must not only protect biodiversity but also contribute to the green economy and generate green jobs."

~Dr. Neha Midha

Dr. Jagdish Bakan (IFS), DFO and Wildlife Warden, Hosur, Tamil Nadu, India

Dr. Jagdish Bakan shared practical insights on how biosphere reserves can generate green jobs while balancing ecological priorities with community needs. He emphasized on inclusivity by bringing local communities on board through capacity building, participatory planning, and skill development to align biodiversity goals with sustainable economic opportunities. Drawing from field experience, Dr. Bakan outlined three major areas for green job creation:

- Ecological restoration: Training communities, especially youth, in restoring degraded ecosystems such as seagrass, coral reefs, mangroves, and grasslands that will offer employment opportunities.
- Sustainable Livelihoods: Promoting alternative income sources through value-added local products such as palm-leaf crafts, shell crafts, coconut-based goods, etc. identifying up to 55 types of green activities in the Gulf of Mannar region.
- Engage Communities in Environmental Governance: Engaging local groups in implementing environmental policies, where communities manage plastic screening and cloth bag production.

"Green jobs should create a win-win situation for both the environment and the people."

~Dr. Jagdish Bakan

Ms. Barsha Lekhi, Programme Officer, UNESCO Kathmandu, Nepal

Ms. Barsha Lekhi highlighted Nepal's ongoing efforts to establish its first UNESCO-designated biosphere reserve in the Kanchenjunga Conservation Area (KCA), managed entirely by local communities through the Kanchenjunga Conservation Area Management Council (KCAMC). The model stands out for its community-led governance, where conservation, livelihood, and cultural preservation coexist. Supported by the Government of India and UNESCO New Delhi, the cross-border cooperation with Sikkim's existing biosphere reserve has facilitated valuable knowledge exchange, strengthening the regional vision for sustainable development.

She shared that a knowledge exchange visit to Sikkim was organized to support the establishment of the UNESCO-designated biosphere reserve on the Nepal side of the Kanchenjunga mountain range, adjacent to India's already recognized Kanchenjunga National Park. The initiative envisions the creation of a South Asian transboundary biosphere reserve, promoting cross-border cooperation, community empowerment, and local economic growth through tourism, cultural enterprises, and sustainable livelihoods.

"Establishing biosphere reserves is not just about conserving nature, it is about empowering people, creating jobs, and strengthening local industries."

~Ms. Barsha Lekhi

Ms. Bhavya George highlighted how Keystone Foundation integrates conservation, livelihood, and enterprise in its work across the Nilgiri Biosphere Reserve. Their approach centres on strengthening farm-based and forest-based livelihoods among indigenous communities, focusing on training, capacity building, and market linkages to support a resilient green economy. The model includes initiatives like the Last Forest Enterprise and Farmer Producer Companies, which ensure that local and indigenous producers gain fair market access and ownership in value chains.

Ms. Bhavya George, Programme Coordinator – Climate Change, Keystone Foundation, Coimbatore

Beyond economic empowerment, the Foundation embeds social and intergenerational justice in its programs. They work with over 50 public schools in the Nilgiris, integrating traditional ecological knowledge from community elders into sustainability education. Women's empowerment remains central to their mission, with initiatives such as UNESCO's "Women for Bees" project, where women are trained in beekeeping and linked to markets, advancing both environmental stewardship and financial independence.

"Women are central to our work – projects like Women for Bees not only sustain biodiversity but also empower women financially."

~Ms. Bhavya George

Dr. Prabhas Pande, Professor of Geology (Retd.), University of Delhi

Dr. Prabhas Pande presented an innovative model of rural development through the creation of geo-tourism villages in the Himalayas. Initiated in 2019, the project aimed to transform clusters of economically marginalized villages into educational and eco-tourism hubs centered on geological, ecological, and cultural significance. By converting a 12-kilometer road into a geo-education site and preserving ancient water mills, harvesting structures, and caves, the initiative demonstrated how geological conservation and local participation can drive sustainable livelihoods. Training programs empowered local youth as guides, women in hospitality, and community groups in enterprise management, fostering inclusive and sustainable green jobs.

The initiative now attracts geology, botany, and geography students for field learning, benefits around 70 local residents while strengthening community ownership of conservation. Its success led to a follow-up project aimed at developing a geopark and replicating this model across 15 additional Himalayan locations. Dr. Pande emphasized that such community-driven geo-heritage initiatives not only conserve natural history but also curb migration, revive local economies, and demonstrate the potential of green employment in mountain regions.

"Conserving geo-heritage is not just about preserving rocks and landscapes, it is about empowering communities. By linking science, tourism, and local enterprise, it proves that green jobs can thrive while revitalizing rural economies."

~Dr. Prabhas Pande





Recommendations

1. Promote Green Career Pathways: Educational and professional institutions should highlight successful examples of green jobs to motivate youth and emerging professionals.

2. Strengthen Interdisciplinary Collaboration: Foster partnerships between scientists, policymakers, and local communities to align research with sustainable livelihoods and conservation outcomes.

3. Empower Local and Indigenous Knowledge: Integrate traditional ecological practices into formal environmental management to enhance resilience and community ownership. Strengthen the participation of indigenous peoples, women, and youth in biosphere management and decision-making

4. Enhance Capacity Building through UNESCO Networks: Expand programs under UNESCO's 'Man and the Biosphere and Hydrology' initiatives to train young professionals in climate adaptation, conservation, and sustainability leadership.

5. Integrate Green Job Strategies in Conservation Plans: Align biodiversity goals with local livelihood opportunities, eco-tourism, and restoration-based employment.

6. Foster Cross-Sector Collaboration: Encourage cooperation among government, academia, and civil society to scale up successful nature-based solutions.

7. Promote Resource-Based Livelihoods: Support value addition and market linkages for sustainable local products like palm or shell crafts.

8. Develop Educational and Cultural Enterprises: Encourage establishment of interpretation centres, research collaborations, and cultural souvenir ventures to enhance awareness and boost local entrepreneurship.

9. Scale Women-led Green Enterprises: Replicate successful models like 'Women for Bees' across other biosphere reserves to boost women's livelihoods and environmental leadership




Lightning Talk

Influencer Mr. Anuj Ramatri

Influencer Anuj Ramatri

Influencer Mr. Anuj Ramatri shared his five-year journey in building a sustainability-focused career. When he began in 2020, even his father doubted whether sustainability could offer lasting career opportunities. However, after collaborating with over 300 startups, Mr. Ramatri proved that the green economy is rapidly expanding and full of potential. He noted that sustainability provides a crucial balance to the rise of AI, offering humanity a grounding counterforce to technological disruption. Highlighting roles such as Chief Sustainability Officer (CSO), he emphasized that sustainability is no longer peripheral, it has become central to business strategy and innovation worldwide.

Mr. Ramatri described how meeting changemakers behind groundbreaking ideas, such as recycling cigarette butts into toys and paper or converting urine into useful products, inspired his filmmaking journey. These encounters reaffirmed his belief in storytelling as a powerful tool for environmental awareness and action. He urged students, creators, educators, and entrepreneurs to embrace sustainability as both a career path and a moral responsibility. Platforms like ICSE, he said, play a vital role in connecting youth with green innovators and shaping the leaders of tomorrow.

"Sustainability is all about balance; the balance between creativity, opportunity, and responsibility."

~Mr. Anuj Ramatri

Special Address

Shri Ajay Kumar, DGM, Bank of India

Shri Ajay Kumar, DGM,
Bank of India

Shri Ajay Kumar, Deputy General Manager of the Bank of India, highlighted that India has the potential to generate millions of green jobs across sectors such as renewable energy, sustainable transport, waste management, eco-tourism, and fashion. However, he noted a significant gap in green skills training that limits workforce readiness for these emerging opportunities. He emphasized the crucial role of financial institutions like the Bank of India in bridging this gap and driving green innovation, aligning economic development with environmental responsibility.

He explained that the Bank of India is actively supporting green job creation by offering green finance and loans for sustainable projects in energy, transportation, and other eco-friendly initiatives. The bank promotes responsible growth through sustainability education, vocational training, and the integration of environmental, social, and governance (ESG) criteria into its lending practices. It also advances digital and paperless banking to minimize its own environmental footprint and provides tailored products such as green mortgages, EV financing, and funding for both corporate and individual renewable energy projects, as well as MSME-led green manufacturing. As a leading public sector bank, it remains committed to collaborating with the government to close the skills gap, foster green opportunities, and build a resilient, climate-ready India.

"Financial institutions like the Bank of India are committed to bridging the green skills gap to drive sustainable growth and innovation."

~Shri Ajay Kumar

Plenary 3

Technology and AI: Driving Green Careers With AI Innovations

Background

AI and emerging technologies are playing a pivotal role in creating new green careers and advancing sustainability across industries. From optimizing resource use and improving energy efficiency to revolutionizing waste management, AI-driven innovations are powering the transition to a greener economy. According to research, the global green technology and sustainability market is expected to grow from USD 28.6 billion in 2024 to USD 134.9 billion by 2030, driven by increasing environmental awareness, regulatory pressures, and the need for cost-effective, eco-friendly solutions. This growing synergy between technology and climate action is not only addressing urgent environmental challenges but also generating demand for specialized professionals in fields such as climate data science, sustainable logistics, AI-enabled waste systems and many more. In this context, Sustainability Education plays a critical role, not just in equipping future professionals with relevant technical skills, but also in fostering ethical, ecological, and systems-based thinking to guide the responsible development and application of AI in sustainability efforts.

The session brought together experts, innovators, and educators and discussed how technology and AI can be leveraged to drive green career pathways, and how education systems can evolve to meet this interdisciplinary demand for climate-smart, tech-enabled professionals. The session showcased successful innovations and initiatives where AI has enhanced positive environmental outcomes and workforce engagement.





Objectives

- Highlight how AI-driven solutions were contributing to green transformations across sectors.
- Identify new opportunities and skills required for professionals in the intersection of technology and sustainability.
- Discuss how curricula and training programs can adapt to prepare climate-smart, tech-enabled professionals.
- Present successful case studies of AI applications that have yielded positive environmental and workforce outcomes.

Speakers

Chair & Moderator:

Dr. Shailaja Donempudi, Distinguished Scientist, Business Development Group, CSIR, New Delhi

Panellists:

Mr. Gareth Dyke, Director – Sales & BD, 4Evolution, UK (virtual)
Dr. Ibrahim Hafeezur Rehman, Dean, Academic Advancement, Research & Development and Consultancy and Director, School of Sustainability, NAMTECH, Gandhinagar
Dr. Manish Modani, Principal Solution Architect, NVIDIA, Bengaluru

Summary

Dr. Shailaja Donempudi, Distinguished Scientist, Business Development Group, CSIR, New Delhi

Dr. Shailaja Donempudi, in her opening remarks highlighted how artificial intelligence and machine learning are driving transformative change, specifically focusing on AI's growing role in fostering green careers, developing green jobs and skills, and navigating the evolving human-AI relationship. Outlining the key objectives, she emphasized the need to highlight AI-driven solutions for green transformations across sectors, identify emerging opportunities and skill sets at the intersection of technology and sustainability, and discuss curriculum reforms that prepare climate-smart, tech-enabled professionals. With this clear framework, she effectively set the plenary into motion, encouraging participants to explore how innovation and responsibility can coexist in an AI-powered world.

Dr. Donempudi further emphasized the importance of integrating sustainability and AI into academic and vocational programs, ensuring that education systems evolve alongside





technological progress. She concluded by encouraging academia, industry, and youth to collaborate in shaping an ecosystem where AI becomes a catalyst for environmental stewardship, ethical innovation, and green employment.

"Academic institutions must embed sustainability and AI together to prepare climate-smart professionals."

~Dr. Shailaja Donempudi

Mr. Gareth Dyke shared his insights on technology, AI, and their implications for green jobs and research communication. Drawing on a decade of experience supporting researchers worldwide, he emphasized how AI has become a transformative force, especially for scholars whose native language is not English. AI, he noted, is "levelling the playing field" by removing linguistic barriers in writing, publishing, and presenting research. This unprecedented accessibility marks a fantastic moment in history for researchers globally, enabling more equitable participation in the international academic community.

Mr. Gareth Dyke, Director – Sales & BD, 4Evolution, UK

Mr. Dyke described how his organization is studying the real-world use of AI and machine learning in research, spanning data collection, analysis, and literature discovery to accelerate traditionally labour-intensive processes. He stressed the importance of ethical guidelines and responsible use, particularly because AI can fabricate or distort data, posing serious risks. He also highlighted emerging ethical dilemmas around plagiarism and originality, cautioning that while AI provides vast access to information, genuine innovation still depends on human intelligence, creativity, and analytical thinking.

"AI can support you, but true innovation still relies on your own analytical and creative skills."

~Mr. Gareth Dyke

Dr. Ibrahim Hafeezur Rehman, Dean, Academic Advancement, R&D-Consultancy and Director, School of Sustainability, NAMTECH, Gandhinagar

Dr. Ibrahim Hafeezur Rehman emphasized how AI is reshaping the future of manufacturing as industries transition into Industry 4.0 and beyond. He highlighted that the next phase of industrial evolution will rely heavily on AI-driven process optimization, where machine learning enhances efficiency, productivity, and decision-making. According to him, it is no longer just about digital technologies but about understanding processes deeply and learning from them to drive sustainable, intelligent industrial growth. In addition, AI will play a crucial role across the full product lifecycle, from predictive maintenance to




remanufacturing, reuse, refurbishment, and circular economy applications. He concluded that these emerging trends call for an entirely new type of workforce skilled in AI-enabled industrial systems.

Extending his focus to academia, Dr. Rehman highlighted the need to address the ethical and legal dimensions of AI use, especially with the rapid adoption of tools like ChatGPT. He stressed the importance of national-level discussions on responsible prompt engineering, development of best practices, and case studies to guide safe and effective AI use. He further underscored the necessity of investing in AI-integrated educational tools and robust Learning Management Systems (LMS) that can support digital learning, memory, and content dissemination.

"We are developing a collaborative platform for learning and digital tools, fostering an exchange of ideas on AI use and access among institutions. This initiative aims to address the ongoing learning curve, ambiguities, and legal challenges in the evolving AI landscape."

~Dr. Ibrahim Hafeezur Rehman

Dr. Manish Modani, Principal Solution Architect, NVIDIA, Bengaluru

Dr. Manish Modani emphasized that the expanding AI economy valued at $105 trillion today and projected to reach $165 trillion by 2030, is creating significant opportunities across AI, ML, and GenAI. He highlighted rising energy demands as a critical challenge, with data centres consuming 2% of global electricity and expected to cross 5%, reinforcing the need for energy-efficient, green AI. He clarified that generative AI is not limited to computer science; the fast-growing domain of AI for Science enables researchers across fields to accelerate innovation in areas such as material discovery, weather forecasting, and language processing. India's active development of Agentic AI, national language AI models like Sarvam & Bhashini, and science-based foundation models under the India AI Mission reflects the country's commitment to building advanced, domain-specific AI ecosystems.

Dr. Modani also stressed that AI is an augmentation tool, not a replacement, enabling researchers to reduce task time, which should be used responsibly. He concluded by noting that the future lies in hybrid AI–quantum systems, where AI accelerates quantum processor design, and quantum computing reduces computational and energy burdens for generative models, making the entire ecosystem more sustainable.

"AI is here to augment you, not replace you. It helps you do your work faster, smarter, and far more efficiently."

~Dr. Manish Modani





Recommendations

1. Integrate AI and Sustainability into Education: Embed AI-driven sustainability concepts into academic curricula and vocational training to prepare future-ready professionals.

2. Integrate AI into early-stage research workflows: Encourage researchers to experiment with models and computational tools at the beginning of projects to accelerate discovery and innovation.

3. Strengthen Industry-Academia Collaboration: Encourage partnerships between universities, tech firms, and sustainability organizations to co-create AI-based green solutions.

4. Develop Green-Tech Capacity Building Programs: Launch dedicated training initiatives, internships, and research labs focused on AI-enabled sustainability careers.

5. Strengthen Industry 4.0 Workforce Skills: Develop training programs that equip workers with AI, machine learning, and cyber-physical system competencies to thrive in next-generation manufacturing.

6. Balance AI Assistance with Human-led Innovation: Encourage researchers to balance AI assistance with strong human-led innovation, critical thinking, and originality to prevent overreliance and safeguard research quality.

7. Embed Circular Economy AI Tools: Integrate AI solutions for predictive maintenance, lifespan assessment, remanufacturing, refurbishment, and material reuse to support sustainable industrial cycles.

8. Foster Ethical & Responsible AI Framework: Develop and implement ethical AI guidelines that ensure data integrity, promote responsible innovation, and mitigate environmental and sustainability risks, especially in high-stakes fields such as medicine.

9. Prepare for hybrid AI–quantum futures: Build institutional capabilities in quantum-aware AI research, recognizing that upcoming breakthroughs will emerge from AI-quantum-High Performance Computing (HFC) integration.





Plenary 4

Greening the Jobs and Careers

Background

"'Green jobs' refer to a class of jobs that directly have a positive impact on the planet, and contribute to the overall environmental welfare", as mentioned by Prime Minister Narendra Modi during the World Environment Day, June 5, 2022.

The transition to a green economy represents one of the most significant employment shifts of the 21st century. According to the ILO, global efforts to combat climate change could generate 24 million new jobs by 2030, with an additional 6 million jobs unlocked through circular economy practices. For India, the opportunity is particularly profound: the Skill Council for Green Jobs (SCGJ) projects the creation of 35 million green jobs by 2047. Key growth sectors include renewable energy, waste management, green transport, urban farming, fashion, and tourism. Yet, the potential of this transformation remains constrained by the green skills gap a mismatch between the needs of employers and the training provided by educational institutions.

Globally, 40% of employers struggle to find workers with the right green skills. In India, only 2% of the workforce has formal skill training, and even fewer are specifically trained for green jobs. Moreover, over 55% of companies lack awareness of the green job opportunity, limiting investment and preparedness for this shift.





Objectives

- Analyse the scale, urgency, and dimensions of the green skills gap globally and in India.
- Explore sectoral opportunities in high-impact areas such as fashion, tourism, renewable energy, and waste management.
- Showcase best practices from education, industry, and entrepreneurship for addressing the skills gap.
- Generate actionable recommendations for policy makers, educational institutions, and industry leaders to strengthen curricula, training programmes, and partnerships.

Speakers

Moderator:
Ms. Manisha Choudhary, National Coordinator UN-PAGE, UNEP

Keynote Speaker:
Mr. Arpit Sharma, CEO, Skill Council for Green Jobs, MSDE, India

Panellists:
Mr. Ashok Bonam, Asia Regional ALCBT Project Coordinator, GGGI
Mr. Tomas Stenström, Senior Specialist, Employment-Intensive Investment, ILO
Dr. Reva Prakash, Environment Policy and Resource Efficiency Advisor, GIZ
Ms. Zeenat Niazi, Chief Advisor, Development Alternatives
Dr. Shailly Kedia, Director, Sustainable Development and Outreach, TERI
Prof. Dr. Varsha Gupta, Head (Research), NIFT

Summary


Ms. Manisha Choudhary, National Coordinator UN-PAGE, UNEP

Ms. Manisha Choudhary, opened the session by emphasizing the growing importance of green jobs and green skilling for India's economic trajectory. She highlighted that India's climate and sustainability agenda has evolved into an economic and developmental priority, supported by proactive national initiatives such as Mission LiFE, membership in the Global Alliance on Circular Economy and Resource Efficiency, and the rollout of 11 circular economy action plans. This transition will create substantial opportunities not only in emerging sectors like renewable energy, e-mobility, and waste-to-wealth enterprises, but also in traditional industries such as agriculture, textiles, and construction.



However, capturing these opportunities requires addressing the challenge of ensuring that India's large and young workforce possesses the skills demanded by an increasingly sustainability-driven global economy.

She emphasized that there is a need to clearly define green jobs in the Indian context, identify priority sectors for investment, map the types of future green jobs, and determine the specific skill sets required. With over a million young people entering the workforce every month, India's demographic dividend can become a major competitive advantage, if channelled into green skilling pathways that meet both domestic needs and international sustainability standards. Ms. Choudhary underscored that the green transition must also be socially inclusive, benefiting women, rural youth, and informal sector workers, and grounded in strong partnerships across government, industry, academia, and civil society.

> "If we channel our demographic dividend into green skilling pathways, India can meet its climate goals while strengthening its competitive edge in global supply chains."
> ~Ms. Manisha Choudhary

Mr. Arpit Sharma, CEO, Skill Council for Green Jobs, MSDE, India

Mr. Arpit Sharma, in his keynote address, highlighted India's emergence as a global leader in climate action, reflected the commitments of achieving over 50% power capacity from non-fossil fuels, reducing one billion tons of carbon emissions, and reaching net-zero by 2070. These commitments have unlocked major investment, employment, and entrepreneurship opportunities across renewable energy, climate action, environmental management, EVs, GHG accounting, and sustainable buildings. He emphasized that the rapidly evolving landscape of solar, wind, biomass, and green hydrogen is creating unprecedented demand for skilled professionals, supported by a clear definition of green skills that includes both technical and transversal competencies.

He emphasized the institutional architecture driving this green transformation are the Ministry of Skill Development and Entrepreneurship, National Council for Vocational Education and Training (NCVET), Skill Council for Green Jobs (SCGJ), and active civil society and industry partners such as GIZ, WRI, NRDC, and leading corporates. Citing current job creation of 3.5 lakh jobs in Solar PV, 85,000 in biogas, and thousands more across biomass, wind, and biofuels, he pointed to an even greater surge ahead. India's target of adding 287 GW of renewable energy by 2030, reaching a cumulative 500 GW, is expected to generate over 21 lakh direct jobs, alongside another six lakh jobs from green hydrogen production. He concluded by stating the key challenges such as training quality, gender inclusion, formalization of waste management, and the need for standardized, industry-validated curricula, while noting that partnerships with SCGJ can help institutions co-create nationally recognized, government-approved green training programs.





"Green skills go beyond technical know-how; they combine technical, transversal, and non-technical capabilities needed for a low-carbon economy."

~Mr. Arpit Sharma

Mr. Ashok Bonam, Asia Regional ALCBT Project Coordinator, GGGI

Mr. Ashok Bonam highlighted that India's green transition presents a dual opportunity of creating millions of green livelihoods and the responsibility to equip the workforce with the right skills. Currently, there is a persistent gap between emerging green job opportunities and the current level of workforce readiness. Citing progress in the energy, cooling, and buildings sectors, he emphasized the significant role of government-led initiatives, especially through the Bureau of Energy Efficiency (BEE), has developed a strong cadre of certified energy managers and auditors who are central to India's decarbonisation efforts. He also pointed to the success of national training programs supported under the Montreal Protocol and Kigali Amendment, which have upskilled refrigeration and air-conditioning technicians in energy-efficient servicing and safe refrigerant handling.

Discussing the buildings sector, Mr. Bonam stated that the Asia Low-Carbon Building Transition Project, is being implemented across five countries and has already strengthened the capacity of nearly 20,000 professionals across the entire building ecosystem - from architects and developers to financial institutions and technology providers. Integrating low-carbon and sustainability principles into university curricula is essential for preparing future graduates for green careers. He noted that India has the potential not only to meet domestic green job demands but also to emerge as a global hub for green skills, if skill development is aligned with actual market needs through strong cross-sectoral collaboration.

"Green jobs offer tremendous livelihood opportunities, but our real responsibility is to equip the workforce with the right skills to meet this demand."

~Mr. Ashok Bonam

Mr. Tomas Stenström, Senior Specialist, Employment-Intensive Investment, ILO

Mr. Tomas Stenström, representing the International Labour Organization (ILO), emphasized the agency's core role within the UN-PAGE partnership is promoting green jobs and ensuring a just transition that manages workplace disruptions arising from climate change and climate action. One of the central challenges that he highlighted is the absence of a common definition or framework for green jobs in India. While countries worldwide vary, in how they define and measure green jobs often focusing solely on environmental aspects, the ILO stresses





that a job must also meet decent work standards, including fair wages and occupational safety. E.g.: The work in electronic waste recycling may appear green, but if the job is unsafe or poorly paid, it cannot be considered a "decent green job." The ILO's collaboration with India's Ministry of Labour and Employment aims to create a unified national framework, drawing from global practices such as the U.S. Department of Labor's occupational database. To advance this effort, they are planning a pilot study within the textiles and apparel sub-sector to classify green tasks and occupations.

Mr. Stenström underscored the significance of social dialogue among government, industry, academia, and workers to ensure that reskilling needs are identified early and that green jobs remain both environmentally sustainable and decent. He finally reiterated the urgent need for a shared national framework, reinforcing the call for co-created skilling pathways.

> "A green job has to be decent and has to contribute to preserving and restoring the environment."
>
> ~Mr. Tomas Stenström

Dr. Reva Prakash, Environment Policy and Resource Efficiency Advisor, GIZ

Dr. Reva Prakash, highlighted the importance of adopting a life cycle approach to understand and strengthen green and circular jobs, particularly in sectors like textiles. She emphasized that environmental and social impacts occur at every stage of a product's life cycle (such as spinning & yarn production to consumption & end-of-life) and identifying these impacts help to locate where interventions and specific skills are needed. Circularity requires both technical and interdisciplinary skills, including understanding material flows, waste management, renewable energy transitions, and sustainable factory operations. Importantly, she noted that green jobs should not be viewed in isolation but within broader ecological and social contexts, ensuring that we avoid burden-shifting, for instance, materials like polyester perform well during use but create significant recycling challenges at end-of-life. She stated that GIZ is currently assessing skills gaps across textile and recycling clusters to design tailored training programs aligned with real operational needs.

She also emphasized the critical role of environmental education and hands-on training in strengthening workforce readiness. There is a need for reskilling within MSME clusters, where workers already possess deep process knowledge but require new competencies in green operations. She concluded by noting that India's major challenge is underinvestment in fundamental education and workforce training, and that more investment is essential to harness the country's demographic dividend and build a future-ready green workforce.





"Circular jobs require an interdisciplinary lens where technical skills must be combined with an understanding of environmental and social impacts across the entire life cycle."

~Dr. Reva Prakash

Ms. Zeenat Niazi, Chief Advisor, Development Alternatives

Ms. Zeenat Niazi, while expressing her views stated that sustainable livelihoods and job creation are central to India's development pathway, and effective green skilling must account for the diverse scales of enterprises, from large industries to micro-enterprises and cooperatives. She highlighted that production jobs in large industries are steadily declining, replaced by high-skill managerial, scientific, and technical roles. This shift, exposes a deep mismatch between the skills demanded by emerging green sectors and the fundamental abilities possessed by many young entrants into the workforce, especially those from rural and underserved education systems. Without urgent attention to foundational learning, particularly language, mathematics, and science, India risks turning its demographic dividend into a "demographic disaster."

Ms. Niazi also underlined the need for a robust enabling environment that strengthens small and micro enterprises through better access to capital, infrastructure, information, and aggregation services. Equally critical is the transformation of markets for green products and green skills through consumer awareness, incentives, and strong public procurement that prioritizes carbon, resource efficiency, and job creation indicators rather than lowest-cost bidding. She emphasized that market signals must reward greener choices so businesses can scale viable green products. Looking ahead, she called for equitable transitions that support workers aged 35–60 who risk being displaced by automation and may struggle to adopt advanced technologies. For her, sector transformation, co-creation, and inclusive market design are essential to ensuring that India's green transition generates widespread and equitable livelihood opportunities.

"If the market does not transform, demand will not grow, and without demand, neither green products nor green jobs can thrive."

~Ms. Zeenat Niazi

Dr. Shailly Kedia highlighted how discussions on India's climate commitments such as the Panchamrit targets often focus disproportionately on energy and emissions, while equally critical areas like carbon sinks, food systems, land use, and sustainable consumption receive far less attention. Drawing on a recent TERI study, she explained that building green jobs in agriculture and allied sectors requires not only new skills but also strengthened institutional capacities to deliver those skills. Their value-chain analysis of qualification packs under National Skill development Corporation (NSDC) revealed that training remains heavily concentrated on crop production, with





limited attention to sustainable consumption, circularity, crop choices, end-use practices, and behavioural change themes such as Mission LiFE.

Dr. Shailly Kedia, Director, Sustainable Development and Outreach, TERI

Dr. Kedia argued that India's demographic dividend and rapid technological advancements position the country to become a global hub for green skills but only if supported by a dedicated, comprehensive policy aligned with national and long-term climate strategies. She emphasised that collaboration across international agencies, industry partners, and CSR initiatives will be essential for scaling capacities and meeting future climate skill demands.

"A value-chain lens shows that our skilling ecosystem is still focused largely on production, while sustainable consumption and circularity receive far less attention."

~Dr. Shaily Kedia

Prof. Dr. Varsha Gupta, Head (Research), NIFT

Dr. Varsha Gupta underscored the pivotal role of higher education institutions like NIFT in shaping the next generation of green-skilled professionals for the fashion and textile industry. She emphasized the need for curriculum reform, noting that sustainability can no longer function as a standalone subject; it must be seamlessly integrated into every program, course, and design process. This integrated pedagogical shift ensures that sustainability becomes a foundational mindset rather than a specialized niche. She highlighted that with 19 campuses across India, NIFT is uniquely positioned to contribute at scale, delivering green skills with the combined power of "skill, speed, and scale."

Dr. Gupta further stressed the transformative power of collaboration, sharing the example of NIFT's partnership with UNEP, which enabled the creation of electives, diploma programs, and industry training modules in sustainable studies. These resources, now part of UNEP's global repository, demonstrate how a single collaboration can amplify national and international green skilling efforts. Reflecting on the industry landscape, she raised a critical concern that despite the flood of "sustainable products" in the market, many do not meet genuine sustainability standards. This makes it imperative for institutions to train students to critically evaluate and design truly sustainable products. She concluded by stating that with systematic collaboration and holistic perspectives, institutes like NIFT can become major drivers of green transformation.

"Sustainability can no longer be taught as a separate subject, it must be woven into every course, every program, and every design process."

~Dr. Varsha Gupta





Recommendations

1. Establish a National Green Jobs Framework: Develop a national framework to define and standardize green jobs and green skills to guide industry, academia, and policymakers.

2. Create Sector-Specific Skilling Roadmaps: Create skilling roadmaps for priority sectors such as renewables, e-mobility, agriculture, textiles, and circular economy industries.

3. Build Inclusive Green Skilling Ecosystems: Build inclusive skilling systems that intentionally support women, rural youth, and informal workers to ensure a just and equitable green transition.

4. Strengthen Cross-Sector Partnerships: Strengthen partnerships involving government, industry, academia, and civil society to scale green skilling nationwide and accelerate workforce readiness.

5. Strengthen Social Dialogue for a Just Transition: Ensure continuous dialogue between workers, employers, and policymakers to anticipate reskilling needs, maintain job decency, and support workers affected by climate-related economic shifts.

6. Strengthen Reskilling Pathways for MSMEs: Develop tailored training programs in energy efficiency, water stewardship, waste minimization, and material circularity, leveraging existing process knowledge within MSME workforces.

7. Increase Investment in Foundational and Green Skill Development: Boost investment in primary, secondary, and vocational education to build a strong foundation for green, circular, and future-ready skills across sectors.

8. Expand Skilling Through a Value-Chain Approach: Adopt a value-chain approach to skilling, expanding focus beyond crop production to areas such as sustainable consumption, food footprint awareness, circularity, waste reduction, and crop diversification.

9. Enhance Capabilities to Drive Low-Carbon Transitions: Enhance the capabilities of all stakeholders, including architects, developers, financial institutions, technology providers, to accelerate low-carbon transitions in India's high-emission sectors.

10. Transform Markets for Green Products: Promote consumer awareness, incentives for green choices, and public procurement criteria that include carbon, resource efficiency, and job creation, not just lowest cost.

11. Support Workers in Transition: Develop targeted reskilling and safety-net programmes for older workers, who may lose jobs in traditional sectors and struggle to adapt to fast-evolving technologies like AI.





Fireside Chat

A Documentary on Planetary Boundaries

Background

The Mobius Foundation, in partnership with Warner Bros. Discovery Channel, is producing Embers of Hope: The Fight for Our Future, a 10-episode documentary series exploring critical challenges to Earth's resilience, including climate change, biodiversity loss, freshwater scarcity, pollution, sea level rise, and population pressure.

The fireside chat highlighted:

- Mr. Burman's vision as an advocate for environmental sustainability and his efforts to raise awareness on climate change through storytelling.
- Mobius Foundation's commitment to promoting sustainability through film and media.
- Mr. Robin Roy's experience and journey in making the documentary, including the challenges and triumphs of bringing this important story to life.
- This promises to be an inspiring exchange on sustainability, storytelling, and the power of media to drive change.

Speakers

Introduction by:
Ms. Jessica Gill, Senior Research Associate, Mobius Foundation

Moderator:
Ms. Sarah Jacob, Foreign Correspondent, FRANCE 24, New Delhi

Mr. Robin Roy, Film Director in Conversation with Mr. Pradip Burman, Chairman, Mobius Foundation

Summary

Ms. Jessica Gill, Senior Research Associate, Mobius Foundation

The Fireside Chat opened with Ms. Jessica Gill underscoring the Mobius Foundation's long-standing belief in the power of knowledge and storytelling to inspire change, culminating in the announcement of an upcoming 10-part documentary series on planetary boundaries, 'Embers of Hope', produced in collaboration with Warner Bros. Discovery. The series focuses on one of the most pressing global challenges - climate change and examines both the alarming transgression of planetary boundaries and inspiring stories of hope, resilience, and action from across India. The audience got an exclusive first look at a 2.5-minute teaser, ahead of the film's release scheduled in November.

Ms. Sarah Jacob, Foreign Correspondent, FRANCE 24, New Delhi

Reacting to the emotional power of the teaser, Moderator Ms. Sarah Jacob asked Mr. Pradeep Burman about the inspiration behind such an ambitious two-year project. Mr. Burman explained that his motivation came from a deep concern for the environment and the urgent need to prevent irreversible damage to the Earth. Johan Rockström's documentary 'Breaking Boundaries' had been a turning point for him; it clarified the concept of planetary boundaries but lacked concrete solutions. This gap inspired him to develop an India-focused series that not only highlights the crisis but offers practical, actionable responses suited to India's realities. Reflecting on India's population increase from 35 crores at Independence to 140 crores today, he noted how rapid growth has intensified deforestation, man-wildlife conflict, and unplanned expansion. While global climate impacts often draw attention in Western media, he stressed that India faces the same threats and requires its own narrative and strategy.

Mr. Pradip Burman, Chairman, Mobius Foundation

Shifting the conversation to filmmaking, Ms Jacob praised the documentary's exceptional craft, calling it a dream opportunity in an era where long-form storytelling struggles against short, instant content. She invited Director, Mr. Robin Roy to reflect on the scale, skill, and responsibility of documenting such a historic moment for humanity. Mr. Roy described feeling deeply privileged to lead the project, crediting Mr. Burman and the Mobius Foundation not only for their financial

Mr. Robin Roy, Film Director

support but also for their intellectual guidance and complete creative freedom. The real challenge, he noted, lay in balancing stark scientific realities with stories of hope and human resilience, something that demanded extensive research and close collaboration with leading experts. He recounted a moment from Uttarakhand where a location they had filmed months earlier had since been wiped out by a landslide triggered by a glacial lake outburst; an example that brought home the immediacy of the crisis.

Ms. Jacob then raised a question about the importance of fact-based storytelling in the series. Mr. Burman said it was driven by two imperatives: the urgency of taking action now and giving people hope that change is possible. He highlighted practical solutions featured in the film such as plastic roads in Kerala and community-led beach cleanups and stressed that empowering communities, especially youth, is vital. Young people, he noted, must take responsibility, influence their families, and help shape a more sustainable future. Acknowledging that older generations have contributed to the crisis, he urged youth to "mend the torn cloth" they are inheriting and accelerate community-driven efforts.

Mr. Roy, then elaborated on the film's hopeful narratives and shared stories of resilience and coexistence across India. E.g.: Farmers in drought-stricken regions who rebuilt their lives by adopting new techniques, and the extraordinary community of Jawai in Rajasthan, where humans and leopards coexist peacefully, a rarity seen anywhere in the world. The speakers also revealed a surprise that the series will be voiced by legendary actor Zeenat Aman, noting that her lived experience across decades of environmental change lends the narrative a powerful authenticity.

While mentioning the project's journey, Mr. Burman explained that the Mobius think tank and research team continuously verified facts, shaping each episode with rigour. In a world where facts are increasingly disregarded, grounding the series in evidence, particularly Indian data and contexts was essential. He noted that while the issues are global, solutions must be adapted to local contexts, and the film demonstrates how such change is possible.

Agreeing with Mr. Burman, Mr. Roy noted that climate risks are universal, from Amazon deforestation to India's own ecological pressures. The core issue is unchecked consumption. Discussing the population episode, he highlighted India's demographic contrast: declining fertility in the south versus hotspots in the north, illustrating that awareness and informed choices can drive change.

Ms. Jacob then asked about climate-linked opportunities, particularly for women and green livelihoods. Mr. Burman pointed to emerging sectors such as biogas and bio-fertilizer production, which can replace harmful chemical inputs and create sustainable employment. He reiterated the urgent need for India to accelerate its transition away from fossil fuels, warning that delays will deepen ecological harm.

As the conversation drew to a close, she asked Mr. Burman whether he still believed in hope. He replied that meaningful action especially reducing fossil fuel use is essential, citing London's rapid elimination of coal during the historic smog crisis as proof that decisive policy can reverse environmental damage. Reflecting on India's current trajectory, he stressed the need to balance development with ecological limits. Ms. Jacob wrapped up the discussion by highlighting Mr. Burman's idea of "environmentality," which reinforces the belief that development can indeed be green without destroying the planet.

"India cannot rely on borrowed narratives. Our challenges, our ecosystems, and our communities are unique, and so are our solutions. This film is our attempt to present a roadmap rooted in Indian realities, backed by evidence and driven by optimism."

~Mr. Pradip Burman

"If we don't document the landscapes now, future generations will never know what places like Gangotri once looked like. The world is changing faster than we realize, and capturing this moment is not just creative work—it's a responsibility. This series becomes an archive of what we may soon lose."

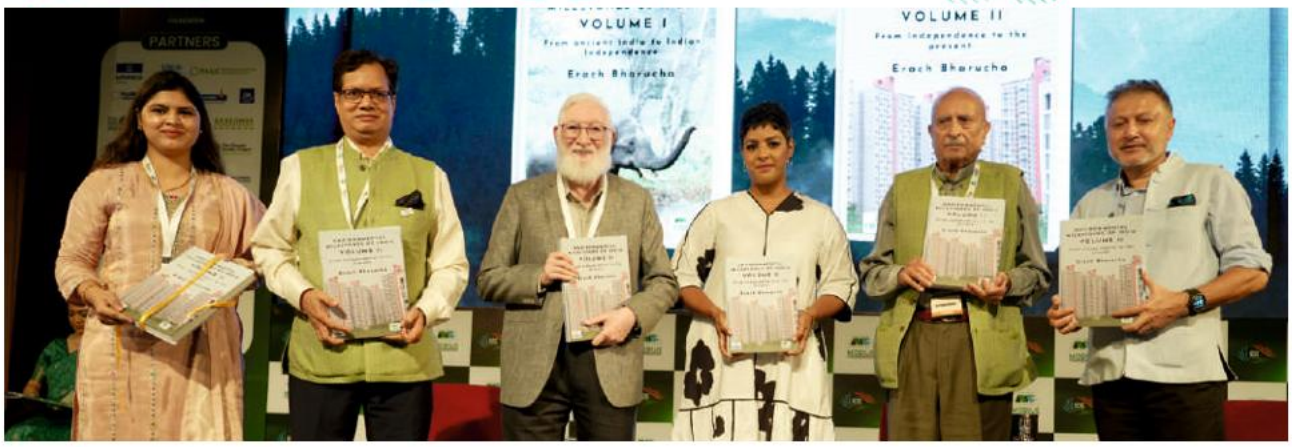
~Ms. Sarah Jacob

"I felt deeply privileged to lead this project. The freedom and intellectual support that Mr. Burman and the Mobius Foundation offered allowed us to tell the story honestly. The hardest part was balancing the stark scientific truths with genuine stories of hope. That balance required months of research and working with some of the country's best experts to get the facts right."

~Mr. Robin Roy

Soft Launch of the Book on

"Environmental Milestones of India"
by Dr Erach Bharucha



At the 7th International Conference on Sustainability Education, there was a soft launch of the two-volume book "Environmental Milestones in India," authored by Dr. Erach Bharucha, a surgeon, wildlife photographer, biodiversity conservationist, environmental educationist, and the Director at Bharatiya Vidyapeeth Institute of Environment Education and Research (BVIEER), Pune. The Volume I of this book traces India's environmental journey from ancient times to Independence, while Volume II covers the period from Independence to the present day.

Mr. Praveen Garg, President, Mobius Foundation & Dr. Erach Bharucha, Director, BVIEER, Pune

Before the launch, Mr. Praveen Garg, President, Mobius Foundation, praised the work as an unparalleled environmental encyclopaedia spanning centuries, commending Dr. Bharucha's multidisciplinary expertise. He also appreciated his team, especially his technical assistant, Ms. Suman Kumari, for her dedicated support throughout the book's compilation.

Dr. Erach Bharucha, Director, BVIEER, Pune

Dr. Bharucha briefly reflected on the 20-year effort behind the project, thanking Mr. Burman and others who encouraged its publication. He explained that the book presents a unique matrix-style narrative of India's environmental evolution, covering policies, legislation, ministries, NGOs, and the key actors who shaped environmental management. He highlighted that the work is meant especially for young readers to understand India's environmental past, present, and future.

Plenary 5

Building Green Skills: Educational Challenges and Opportunities for the Global South

Background

As countries across the Global South confront the twin pressures of development and climate change, aligning education with a green and just transition is increasingly urgent. The region's cultural, social, and ecological diversity offers unique opportunities for context-specific, culturally grounded solutions, while its priorities, unlike the Global North must focus on adaptation, resilience, and safeguarding livelihoods.

Preparing future-ready communities requires competencies that match emerging green jobs and sustainable livelihoods, including technical expertise and core skills such as problem-solving, leadership, systems thinking, and collaboration. Although green practices are beginning to enter vocational and technical education, Education for Sustainable Development (ESD) competencies remain limited. Strengthening critical thinking, systems thinking, and collaborative skills can improve employability, enhance problem-solving, and shape community-wide sustainability mindsets. Traditional green practices, from natural drying to passive cooling hold valuable lessons and should be integrated into engineering, architecture, and Technical and Vocational Education and Training (TVET) curricula. Apprenticeships, project-based learning, and sector placements can bridge theory with real-world application.

This session was organised under the auspices of the SASEANEE to explore how education systems in the Global South could respond to the challenges and opportunities. By sharing regional examples and policy insights, it spotlighted pathways for building green skills and future-ready communities.





Objectives

- Examine how education systems in the Global South could align with a green and just transition while addressing poverty, inequality, and youth aspirations.
- Highlight the integration of Education for Sustainable Development (ESD) competencies with technical and vocational education for building future-ready communities.
- Showcase regional examples and policy insights on embedding traditional knowledge, innovation, and inclusivity in green skills development.

Speakers

Moderator:

Ms. Madhavi Joshi, Senior Program Director, CEE, Ahmedabad

Chair:

Mr. Kartikeya Sarabhai, Founder Director, CEE, Ahmedabad (Virtual)

Panellists:

Ms. Sharizad Dahlan, Director, ISTIC-UNESCO, Malaysia
Mr. Arpit Sharma, CEO, Skill Council for Green Jobs, MSDE, India
Dr. Suresh Gautam, HOD, Dept. of Development Education, Kathmandu University, School of Education, Nepal
Dr. Bhola Ram Gurjar, Director, NITTTR, Chandigarh
Dr. Subarna Sivapalan, Associate Dean, RKE, University of Nottingham Malaysia, Co-Chair, UNESCO Chair in International Education and Development (Virtual)
Dr. Presha Ramsarup, President EEASA and Director, CREL, University of Witwatersrand, South Africa (Virtual)

Summary

Ms. Madhavi Joshi, moderator of the session reflected on the importance of building green skills in the Global South. She highlighted how conversations throughout the day underscored issues of inclusivity, vulnerability to climate impacts, and the need for green jobs and skills that respond to regional realities. The Global South holds a rich repository of traditional knowledge, adaptive practices, and innovative problem-solving approaches that can significantly strengthen resilience and climate adaptation efforts.

Ms. Madhavi Joshi, Senior Program Director, CEE, Ahmedabad

Ms. Joshi introduced the South and Southeast Asia Network of Environmental Education





(SASEANEE), acknowledging the support of the Mobius Foundation, Mr. Pradip Burman, Dr. Ram Boojh, and the team. With over 300 member organizations, this network serves as a hub for resources, good practices, and opportunities for youth across the region. Participants were encouraged to join the network and engage with its growing repository of internships, examples, and learning materials.

"There is a lot of learning available from the Global South such as traditional practices, innovations, and ways of adapting to climate change that continue to evolve."
~Ms. Madhavi Joshi

Mr. Kartikeya Sarabhai, Founder Director, CEE, Ahmedabad (Virtual)

Mr. Kartikeya Sarabhai highlighted that predicting future jobs, especially in fast-evolving green sectors is extremely difficult. Instead, education systems must focus on preparing learners to be adaptable, flexible, and capable of shifting across roles as industries transform. He emphasized that the National Education Policy (NEP) in India aligns with this approach by prioritizing critical thinking, systems thinking, and problem-solving abilities. These broad competencies, should be paired with short, targeted training programs that help people quickly acquire specific skills, such as in solar technology, and transition from one job to another as needed.

Mr. Sarabhai stressed that the idea of a single lifelong job is outdated, especially in the green economy, where roles evolve rapidly. Therefore, school and college systems must equip individuals with foundational cognitive skills while institutions offer periodic retraining for emerging needs. He also underscored the significance of South–South cooperation in advancing these educational and skill-building strategies. He concluded by extending his appreciation to the organizers and wishing continued success to the collaborative efforts underway.

"The whole emphasis of the education system must be on critical thinking, systems thinking, and problem-solving, combined with bursts of very specific training."
~Mr. Kartikeya Sarabhai

Ms. Sharizad Dahlan presented the work of the International Science, Technology and Innovation Centre for South-South Cooperation (ISTIC), a UNESCO Centre supported by Malaysia's Ministry of Science. She explained that ISTIC functions as a catalyst for South-South collaboration, designing initiatives based on landscape assessments, horizon scanning, and need analysis. Recognizing Southeast Asia's high climate

Ms. Sharizad Dahlan, Director, ISTIC-UNESCO, Malaysia




vulnerability, ISTIC aims to build population-wide adaptation literacy by integrating Climate Change Education (CCE) into schools, ensuring that every future worker develops foundational climate-related competencies.

Ms. Dahlan emphasized that climate change education goes beyond environmental awareness, it equips students with analytical, problem-solving and pro-social competencies that translate into green jobs and resilient livelihoods. At its core, she argued, CCE transforms a love for nature into concrete skills, credentials, and climate-smart career pathways.

"Southeast Asia is highly volatile, and its climate risks demand population-wide adaptation literacy, not just niche technical skills."

~Ms. Sharizad Dahlan

Mr. Arpit Sharma, CEO, Skill Council for Green Jobs, MSDE, India

Mr. Arpit Sharma shared practical, on-ground examples demonstrating how targeted green skills training can transform livelihoods for marginalized communities in India. He highlighted a major initiative in Gujarat, where 800 women salt-pan workers from SEWA received four months of solar technical training. Despite their limited formal education, the programme significantly boosted their employability and during an industry interaction organised at the training centre, 40% of the women received immediate job offers, underscoring the power of well-designed capacity-building interventions.

He also described two additional large-scale programmes. Together, these examples demonstrate how multi-stakeholder partnerships and industry-aligned curricula can create green employment pathways while improving working conditions for vulnerable groups.

- Forthcoming Solar Rooftop Academy at PDEU in Gujarat, supported by the Government of Australia and ReNew Power, which will train around 1,000 women from marginalized backgrounds in solar PV technologies, an initiative formally endorsed by the Prime Ministers of both India and Australia.
- Trained nearly 90,000 sanitation workers across 500 municipal corporations in mechanized cleaning and safe equipment use, delivered through SCGJ's extensive network of partners.

"Our collaboration with international partners has allowed us to establish a dedicated Solar Rooftop Academy that will empower women with specialized skills in the solar energy sector."

~Mr. Arpit Sharma





Dr. Suresh Gautam, HOD, Dept. of Development Education, Kathmandu University, School of Education, Nepal

Dr. Suresh Gautam reflected on how academic institutions in the Global South can meaningfully advance South-South cooperation by prioritizing shared identity, local knowledge, and community-centered development. He emphasized that collaboration should not default to Global North partnerships but instead draw strength from the cultural, social, and developmental similarities that connect countries across the Global South. Highlighting Nepal's own philosophy of "small is beautiful," he explained how this worldview is embedded in their pedagogy, research, and institutional partnerships.

He outlined three core pillars of his department - Sustainable Development, Technical and Vocational Education and Training (TVET), and Indigenous Education and Development, which guide their teaching, research, and engagement with communities. Dr. Gautam described how the university collaborates with local governments and conducts research directly shaped by community needs, such as recent work on circular economy practices. He stressed that genuine development emerges when universities engage deeply with people on the ground and generate skills that respond to local contexts and emerging economic pathways.

> "In Nepal, the idea that 'small is beautiful' shapes how we teach, learn, and collaborate; it reinforces dignity, local knowledge, and community-centered development."
>
> ~Dr. Suresh Gautam

Dr. Bhola Ram Gurjar, Director, NITTTR, Chandigarh

Dr. Bhola Ram Gurjar emphasized that the National Institute of Technical Teachers Training and Research plays a pivotal role in shaping educators who then pass on capacity-building to institutions and students, creating a positive ripple effect. Reflecting on the National Education Policy 2020, he highlighted the increasing importance of integrating values with skills and knowledge. Drawing on philosophical perspectives, he contrasted the commonly cited competitive worldview with Peter Kropotkin's philosophy of cooperation, noting that humanity has survived through collaboration, not conflict.

He underlined that value-based education should guide both teaching and curriculum, urging educators to design courses grounded in universal human values. By referencing examples like Padma Shri Sridhar Vembu's rural development efforts, Dr. Gurjar illustrated how environmentally aligned, community-centered models offer sustainable alternatives to urban-centric growth. He concluded that education must build responsible citizens who pursue what is good for themselves and the environment, shifting from ego-centric success to eco-centric well-being.





"Education today must be built not just on skills and knowledge but on strong, universal values that guide responsible living with nature."

~Dr. Bhola Ram Gurjar

Dr. Subarna Sivapalan, Associate Dean, RKE, University of Nottingham Malaysia, Co-Chair, UNESCO Chair in International Education and Development (Virtual)

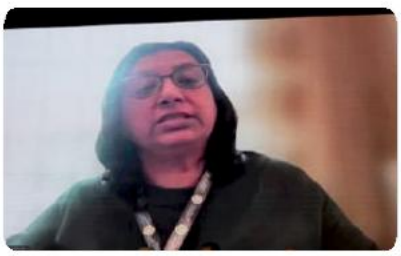
Dr. Subarna Sivapalan highlighted the growing emphasis on green skills within Malaysia's higher education policy landscape, noting that industry demand for sustainability competencies is steadily rising. While STEM programmes have begun integrating green competences, many arts and social science programmes still do not treat them as core learning outcomes. She emphasized that this gap limits graduates' preparedness for emerging green workforce needs. Encouragingly, Malaysia's upcoming Higher Education Blueprint marks a major shift, as it explicitly identifies sustainability and planetary health as priority areas that all institutions must address.

She further explained that accreditation bodies in Malaysia are now requiring universities to embed education for sustainability and green, value-based competencies into their programmes. Non-compliance could affect accreditation status, signalling a movement away from isolated, institution-level initiatives toward more strategic, systemic integration. This policy direction represents a positive step towards ensuring that graduates across disciplines, not only in STEM, are equipped with the green competencies necessary for the country's evolving labour market.

"Moving from siloed initiatives to strategic, structured policy integration marks a positive shift for embedding green skills across Malaysia's higher education system."

~Dr. Subarna Sivapalan

Dr. Presha Ramsarup emphasized that across the Global South, discussions on green transitions have been dominated by technical and technology-focused jobs, while the realities of youth unemployment demand more innovative thinking about entry-level pathways. Current job forecasts both in the Global South and North tend to offer high-level projections that overlook entry-level roles and fail to show how young people can move horizontally or vertically within green sectors. This lack of visibility makes it difficult for youth, especially in rural areas, to understand how to enter and navigate emerging green opportunities.



Dr. Presha Ramsarup, President EEASA and Director, CREL, University of Witwatersrand, South Africa (Virtual)





Dr. Ramsarup argued for a shift from individualized training towards building responsive skills formation systems that recognize the full spectrum of green work. She highlighted that many forms of climate-adaptive work such as care work, wetland or river rehabilitation, and community-based environmental restoration remain invisible, underfunded, and dependent on development aid, despite being vital to sustainability. These roles are often neither recognized nor integrated into formal skills systems or public funding structures. She urged policymakers and educators to view these community-based practices as viable green jobs and to adopt a more nuanced, multi-layered understanding of the green economy that moves beyond a narrow focus on technology-centric roles.

> "We must move beyond a technology-biased view of the green economy and start thinking about green jobs in more nuanced ways, grounded in real community needs and experiences."
> ~Dr. Presha Ramsarup

Recommendations

1. Build Foundational Green Competencies and Flexible Learning Systems: Prioritize critical thinking, systems thinking, problem-solving, and adaptability across schools, colleges, and vocational systems, supported by flexible, short-term skill programs that enable rapid reskilling for evolving green jobs.

2. Strengthen Teacher and Trainer Capacity for Climate Change Education: Equip educators with updated pedagogical tools, community-based project skills, and interdisciplinary approaches to deliver climate change education and sustainability learning effectively.

3. Integrate Traditional, Indigenous, and Local Knowledge into Training: Embed community-rooted practices, ecological wisdom, and local adaptive solutions into Technical and Vocational Education and Training (TVET), higher education, and skill development programmes to make green learning culturally grounded and context-specific.

4. Broaden and Formalize Green Work Across Sectors: Adopt an inclusive definition of green jobs that values technological, ecological, and community-based roles. Recognize and formalize climate-adaptive community work, such as restoration and care services within national skills frameworks and public funding.

5. Strengthen Pathways and Industry Linkages for Green Employment: Map clear entry-level green pathways and ensure training programmes culminate in industry linkages, job fairs, apprenticeships, or placement drives so skills translate into real employment.

6. Deepen University-Community and Education-Industry-Government Partnerships: Promote strong collaboration among universities, communities, industry, and government so curriculum





design, research, and training respond directly to local development needs and emerging green opportunities.

7. Scale Capacity Building in Essential Public Services: Expand mechanized-cleaning, safety-equipment, and environmental health training for sanitation and essential-service workers across municipalities to improve working conditions, dignity, and professional standards.

8. Promote South-South Knowledge Exchange and Regional Cooperation: Leverage platforms like SASEANEE and wider South-South networks to share innovations, training models, and best practices, enabling countries of the Global South to jointly advance dynamic green workforces.





Plenary 6

STEM for Sustainability: Innovating a Greener Tomorrow

Background

STEM (Science, Technology, Engineering, and Mathematics) education offers a powerful route forwards training future generations with the critical skills, creativity, and innovation needed to build sustainable and inclusive societies. STEM education is deeply intertwined with the United Nations Sustainable Development Goals (SDGs), with SDG 4 (Quality Education) being the most direct link, while other SDGs such as SDG 7 (Clean Energy), SDG 9 (Industry, Innovation, and Infrastructure), and SDG 12 (Responsible Consumption and Production) are also highly relevant. By integrating SDG-related problems into STEM learning, students develop practical, real-world skills and become responsible global citizens.

India, with its vast youth population and urgent environmental challenges, is uniquely positioned to lead this shift. Across the country, innovators are developing context-specific green solutions, from solar microgrids and tech-enabled crop advisory platforms to bamboo-based construction materials and affordable water filtration systems. Scaling such innovations requires STEM learning to move beyond technical expertise, integrating ecological literacy, ethical innovation, and inclusive problem-solving. The integration of sustainability into education, as envisioned in India's National Education Policy (NEP) 2020 is already empowering young people to become climate-conscious leaders and community changemakers. By aligning STEM education with India's green growth goals, a generation can be equipped not only with cutting-edge skills but also with the values and vision to build a greener, more resilient future.

This plenary deliberated on the critical role of STEM education in advancing sustainability and





achieving the Sustainable Development Goals (SDGs). It examined opportunities for green jobs, highlighted the essential skills for sustainability-focused careers, and explored how stakeholders can collaborate to strengthen the STEM ecosystem for a sustainable tomorrow.

Objectives

- Discuss and demonstrate the transformative role of STEM education in addressing global sustainability challenges through systems thinking and interdisciplinary approaches.
- Share the learnings and experiences of emerging green job opportunities and the core STEM competencies, such as data fluency, systems design, and climate-tech innovation needed to thrive in sustainability-focused careers.
- Showcase STEM-driven innovations and community-based solutions that enhance environmental resilience, promote circularity, and improve quality of life across diverse geographies.
- Foster collaboration between academia, industry, and policymakers in strengthening the STEM ecosystem for sustainable growth.

Speakers

Moderator:

Mr. Dilip Surkar, Executive Director, Vikram A Sarabhai Community Science Centre, Ahmedabad

Panellists:

Dr. Kiran Bhujun, Director, Ministry of Tertiary Education & Scientific Research, Govt. of Mauritius
Ms. Sharizad Dahlan, Director, ISTIC-UNESCO, Chairperson, ZSF, New Delhi
Dr. Tabassun Jamal, Chairperson, ZSF, New Delhi
Mr. Aunali Rupani, Founder, Arm Research, Ohio, USA
Dr. Swapna Gurla, Research Scientist, Department of Pharmacology, University of Medicine and Dentistry, Rutgers University, New Jersey, USA

Summary

Mr. Dilip Surkar, mopened the plenary highlighting the urgency and relevance of rethinking STEM education in the context of India's climate commitments and global sustainability challenges. He underscored how artificial intelligence and climate change - two powerful forces reshaping the world are simultaneously disrupting traditional jobs and creating millions of new opportunities in renewable energy, circular economy sectors, electric mobility, sustainable agriculture, and environmental management. He emphasized that STEM

Mr. Dilip Surkar, Executive Director, Vikram A Sarabhai Community Science Centre, Ahmedabad





education must be reimagined to prepare young people for these emerging green jobs and for India's aspirations toward Viksit Bharat 2047 and its net-zero ambitions.

Mr. Surkar described STEM as more than a set of disciplines, framing it instead as an approach that cultivates critical thinking, creativity, and problem-solving. Integrating sustainability into STEM i.e. 'Green STEM' is essential for equipping learners with the mindset and skills needed for climate resilience and low-carbon futures. He pointed to India's ongoing transitions, from large-scale solar missions to EV adoption and climate-smart agriculture, as evidence of expanding opportunities.

"STEM must be reimagined and repurposed. It should prepare our learners not only for today's careers but for the green jobs of tomorrow, which will define India's path towards net-zero."

~Mr. Dilip Surkar

Dr. Kiran Bhujun, Director, Ministry of Tertiary Education & Scientific Research, Govt. of Mauritius

Dr. Kiran Bhujun highlighted the urgent realities faced by Small Island Developing States (SIDS), where an annual sea-level rise of just 3 mm could lead to the loss of 10% of their coastal areas by 2050. This would result in diminished ecological footprints, loss of economic land, disappearing beaches, and reduced national sovereignty as territorial boundaries shrink. Drawing from the experience of Mauritius, he highlighted how global warming is also driving harmful algal blooms that erode beaches, deter tourism, and strain national economies. He emphasized that infrastructure solutions such as sea walls are insufficient; climate threats are far more complex and demand systemic, long-term responses.

He argued that STEM must evolve from a narrow focus on scientific expertise into a transformative force for resilience and sustainability. He outlined three priorities: cultivating sustainability awareness from early childhood; fostering a solution-oriented mindset in educators and learners to address societal challenges through cross-sector collaboration; and strengthening science diplomacy to ensure scientific insights are translated into clear, actionable policies. Finally, he positioned STEM as the essential first step in a collective journey; one that requires unity, international cooperation, and shared purpose to build a more sustainable future for vulnerable nations and the world at large.

"It is not about creating people for a job; it is about creating people who can find solutions to societal problems by bringing everyone together across sectors."

~Dr. Kiran Bhujun

Ms. Sharizad Dahlan, highlighted that the core challenge in advancing STEM for sustainability is not the absence of initiatives but the lack of alignment between classroom learning, real-world green





labour market needs, and the policy and investment frameworks required to support this transition. She noted that while hackathons, workshops, and competitions are widespread, they remain fragmented and insufficiently connected to green economy skills, resulting in graduates who are unprepared, industries that struggle to find skilled workers, and national policies that lack grounded implementation. She also emphasised that global frameworks such as ESD 2030 and UNESCO's Greening Education Platform offer strong guidance, but their impact remains uneven because they are not consistently localised to diverse cultural, economic, and educational contexts.

Ms. Sharizad Dahlan, Director, ISTIC-UNESCO, Malaysia

She outlined that the DNA of effective STEM-and-sustainability initiatives are clear intent, policy alignment, strong design, sustainability planning, scalability, measurable impact, inclusion, and powerful communication. Concluding with a call to action, she urged stakeholders to adopt a whole-of-nation, whole-of-system, and whole-of-society approach, emphasising that building a green future requires integrated, end-to-end collaboration across all levels.

> "We have all the global frameworks and beautiful policies, but without contextualized implementation, they remain only aspirational."
>
> ~Ms. Sharizad Dahlan

Dr. Tabassum Jamal, Chairperson, ZSF, New Delhi

Dr. Tabassum Jamal emphasized the need to rigorously evaluate the impact of science and STEM education initiatives in India by documenting and quantifying outcomes. Drawing on the mission of the Zaheer Science Foundation, founded on the principle that "science is for society, not for shelves", she highlighted the importance of cultivating scientific temperament, critical thinking, and science diplomacy to shape a sustainable future. She illustrated how initiatives like CSIR's Jigyasa program and student-scientist interactions foster curiosity and empower young learners, noting how the Foundation has enhanced access by bringing scientists directly to children.

Dr. Jamal further underscored the need for collaborative national efforts, stronger institutional ecosystems, and a renewed focus on self-reliance, supported by CSIR's network of 39 laboratories that work seamlessly across the country. Stressing the importance of preparedness for emerging green and blue economy opportunities, she called for reviving the National Vocational Qualification Framework and strengthening vocational pathways. Citing impactful examples such as the recent Indian Institute of Chemical Technology (IICT), Hyderabad hackathon, she concluded that sustainability requires actionable, scalable, and context-sensitive initiatives, grounded in





continuous impact evaluation, action research, and the ongoing evolution of education policies.

"Building scientific temperament and critical thinking is essential if we want a truly sustainable future. Science diplomacy must translate knowledge into action that benefits people on the ground."

~Dr. Tabassum Jamal

Mr. Aunali Rupani, Founder, Arm Research, Ohio, USA

Mr. Aunali Rupani offered a powerful reflection on the role of STEM in reshaping human consciousness, arguing that humanity has long operated on outdated beliefs, consuming resources without contributing to collective well-being. He emphasized that true scientific education begins with self-alignment, self-realization, and self-actualization, enabling individuals to understand not just the world but themselves. STEM is essential for breaking limiting beliefs, nurturing critical thinking, and cultivating a scientific temperament capable of addressing climate change, environmental degradation, and other global challenges. He also called for restoring dignity to teachers as "transformers of society" who model curiosity, ethics, and scientific communication.

Highlighting his foundation's work, Mr. Rupani outlined five strategic areas to strengthen STEM education: transforming science teachers into technology educators; embedding climate change and disaster preparedness in curricula; integrating science communication across subjects; teaching ethics as a core component of STEM; and encouraging teachers to pursue research to inspire students.

"The sustainability crisis is not a crisis of green or blue jobs; it is a crisis of consciousness. Once people understand their interconnectedness, the right actions follow naturally. STEM is the tool that helps us reach that awareness."

~Mr. Aunali Rupani

Dr. Swapna Gurla, Research Scientist, Department of Pharmacology, University of Medicine and Dentistry, Rutgers University, New Jersey, USA

Dr. Swapna Gurla reflected on her 35 years in advanced biomedical research and how it shaped her understanding of today's learners. Through her work in drug discovery and interactions with medical students, she observed that the current generation is fundamentally different, highly tech-savvy, information-rich, and unwilling to engage in traditional memorization-based learning. Students now question why they should learn times tables or memorize the periodic table when information is digitally available to them. Despite this





shift, she emphasized that their curiosity and digital fluency are powerful strengths that educators must harness rather than resist. She noted that many textbooks are outdated, overly focused on historical narratives, and disconnected from the scientific realities students need to address, particularly global challenges like climate change and environmental degradation.

Dr. Gurla stressed the urgency of revising curricula to incorporate contemporary scientific knowledge, such as updated carbon cycle models, and to prepare learners for the environmental crises they are inheriting. Educators must be honest with students about the state of the planet rather than shielding them from uncomfortable truths. She finally highlighted that STEM education should empower students to innovate, solve real-world problems, and apply their intelligence and digital tools to build a more resilient and sustainable future.

> "We can't protect children from the truth. We ruined the Earth, and we are leaving problems for them to fix. Education must give them the facts and the tools to innovate better solutions."
> ~Dr. Swapna Gurla

Recommendations

1. Reimagine STEM as Green, Future-Focused STEM: Integrate sustainability, climate literacy, ethics, and real-world problem-solving into STEM curricula, ensuring learners are prepared for AI-driven and climate-impacted futures.

2. Strengthen Teacher Capacity and Professional Development: Equip teachers with continuous training in digital tools, emerging technologies, updated scientific knowledge, and research engagement so they can confidently deliver future-ready STEM education.

3. Leverage Students' Digital Strengths Through Applied Learning: Replace memorization-heavy methods with technology-rich, inquiry-based, and application-oriented learning that builds critical thinking, creativity, and systems thinking.

4. Integrate Climate and Disaster Education Across Subjects: Embed climate change, environmental science, and disaster preparedness into mainstream education to build scientific, adaptive, and resilient learners.

5. Revive and Align Vocational and Green Skills Pathways: Strengthen frameworks like the National Vocational Qualification Framework and integrate vocational education with emerging green, blue, and STEM job markets.

6. Enhance Cross-Sector Collaboration for National Sustainability Goals: Foster partnerships among educators, industry, government, and research institutions to build alignment between STEM education, labour market needs, and India's net-zero priorities.




Recommendations

7. Improve Science Communication and Policy Uptake: Translate scientific findings and conference recommendations into accessible language to support evidence-based policymaking and broader public understanding.

8. Expand Inclusive and Scalable STEM Outreach Models: Promote models that take scientists, researchers, and innovation experiences directly to schools or community hubs, ensuring equitable access for students regardless of geography or mobility.




Film Screening

"Wake Up Planet Earth"
by David Richardson

The world's growing population is exerting significant pressure on the global climate, and science offers critical insights into what a sustainable population for our planet might be. Climate change arises from the combined impacts of population growth, collective and individual patterns of consumption and pollution.

This powerful documentary explores the scientific links between population, consumption, and the future of sustainability. It underscores the urgency of collective action to safeguard our planet. Screened in both English and Hindi at ICSE 2025, it aims to spark meaningful dialogue and inspire action among participants from all backgrounds.

Sustainability Samvad 1

Mr. Richard McDonald,
Executive Director,
R Futures Group, Switzerland

In Conversation With

Ms. Raffaella Folli,
Professor of Linguistics,
Ulster University, UK

The Sustainability Samvad brought together two distinctive voices: Ms. Raffaella Folli, a linguist from Ulster University, UK, and Mr. Richard McDonald, Executive Director of R Futures Group, Switzerland. What unfolded was a lively and thoughtful conversation on how education, imagination and intergenerational exchange can shape a more sustainable future.

Ms. Folli initiated the discussion as she spoke with curiosity about the word "Samvad", noting that it was a new addition to her vocabulary and that it felt particularly apt for a dialogue centred on shared responsibility.

Ms. Raffaella Folli, Professor of Linguistics, Ulster University, UK

As a linguist and former provost, she reflected on the role of universities and described how higher education can sometimes operate at a distance from immediate social and environmental challenges. This realisation pushed her to rethink how universities could contribute more directly. Routine conversations with business leaders and policymakers revealed a troubling pattern of decisions driven by short-term urgency rather than long-term wellbeing. In response, she initiated an experiment within her own institution by bringing architecture students who are already trained to apply sustainability thinking as a core principle, working with civic and business leaders in an intensive, city-funded programme. Over three days, these "architects of change" guided decision-makers through the basics of sustainable development, encouraging them to rethink their assumptions and behaviours.

Turning to Mr. McDonald, she invited him to share his vision of a "school of the future," a topic that had long captivated his work.

Mr. McDonald picked up the thread with energy and reflected on his own transformation from a rule abiding student to someone who values constructive disruption. Schools need more people who are willing to dismantle old structures and rebuild them with imagination, much like engineers, designers or artists do every day. He emphasised the power of role models who inspire, rather than merely instruct, suggesting that the term "teacher" can feel too transactional to capture the depth of influence required for genuine transformation.

He invited students to move to the front rows, a simple yet powerful reminder that young people should never be on the sidelines of conversations about the future. They belong at the centre: visible, confident and unafraid to question. This shift in positioning reflects that schools must embrace students as active architects of their own learning. Educators and institutions should empower them to question, challenge and participate alongside those who shape society's decisions, because a thoughtful question from a young mind can often carry more weight than a polished statement from an adult.

Mr. Richard McDonald,
Executive Director,
R Futures Group, Switzerland

The discussion deepened as the speakers explored how leaders, often overwhelmed by immediate pressures, could still prioritise sustainability in their decision-making. Mr. McDonald acknowledged the tension between the pursuit of "quick wins" and the need for long-term commitments, observing that the future can feel distant or abstract to those making daily trade-offs. To bridge this gap, he drew a simple analogy: if his grandparents had been told that a small handheld device would one day control almost every part of daily life, they would have found the idea unimaginable. Yet within a few decades, that reality came true. For him, this shift illustrates how quickly the seemingly impossible can become ordinary, and reinforcing the need to help decision-makers see sustainable choices not as utopian dreams, but as achievable outcomes.

He then turned his attention back to the students again, and posed two contracting questions: one simple, where they lived and another far more introspective, asking about their deepest intent.

A student had responded that her deepest intent was to do what felt right. He praised the honesty and pointed out that such reflective questions, which do not have a right or wrong answer, help individuals understand what truly drives them. These moments, he suggested, are where real development happens. Breaking down hierarchies of knowledge begins with conversations across ages, experiences and cultures. Ms. Folli added her own perspective on bridging generations and social groups. She described a community project on a small island with limited resources, a handful of children, and older residents deeply tied to the land. By bringing these groups together to address local challenges, they created a living case study that revealed how interconnected, small-scale efforts can spark wider learning and change. Such examples, she argued, help translate sustainability from abstract concepts to lived experience.

As the session drew to a close, Mr. McDonald urged the audience, especially the students, to take a moment in the days ahead to reflect on their "deep intent," and suggesting that the act of naming it can give direction and momentum. He described this clarity as a kind of "rocket fuel," and said that future schools must be places that provide such fuel by inspiring, engaging and interacting, rather than merely instructing them.

"We need to empower young people to imagine a different world and bring generations together to turn that imagination into reality."

~Ms. Raffaella Folli

"Students must become the active architects of their own learning. Don't wait to be invited to the front, claim your place in every conversation that shapes your future."

~Mr. Richard McDonald

Sustainability Samvad 2

Dr. Rajendra Singh,
Waterman of India and
President, Peoples' World
Commission on Drought and Flood

In Conversation With

Mr. Pradip Burman,
Chairman,
Mobius Foundation

The Sustainability Samvad brought together two influential voices in India's environmental landscape for a reflective and insightful dialogue. The conversation began with Dr. Rajendra Singh expressing his gratitude to Mr. Pradip Burman, acknowledging his long-standing vision for a future where nature and culture coexist harmoniously. Dr. Singh traced this idea back to India's traditional knowledge systems, where learning grew organically from curiosity, lived experience, and deep observation of the natural world. He shared how concepts of Bhagwan were originally rooted in elemental connections such as Bha (earth), Ga (sky), Wan (wind), and how this worldview once shaped a sustainable education system that thrived before being fragmented over the last two centuries. He also emphasized that education becomes transformative when it emerges from one's relationship with nature. He then quoted, "A Guru, does not fill a student's mind; instead, they ignite inquiry." When knowledge, culture, and nature align, sustainability becomes part of everyday conduct rather than an abstract ideal.

Dr. Rajendra Singh, Waterman of India and President, Peoples' World Commission on Drought and Flood

The session then shifted to personal reflections from Mr. Pradip Burman, who spoke about his early encounters with environmental literature, beginning with 'Silent Spring' and later 'Small is Beautiful'. These books, along with Al Gore's 'An Inconvenient Truth', shaped his understanding of ecological limits and the consequences of unchecked consumption. He contrasted India's culture of saving with the consumerist economic models he encountered abroad, stressing how these global shifts

in consumption patterns have pushed the planet to the brink.

Mr. Burman explained the Mobius Foundation's focus on population stabilization and education, emphasising the strong connection between literacy and demographic balance. He spoke about the Mobius Foundation's 100-school program for tribal and rural communities in Uttar Pradesh and Madhya Pradesh, built on the belief that education naturally empowers communities to make sustainable choices.

Mr. Pradip Burman, Chairman, Mobius Foundation

Questions from the audience had added another layer to the conversation. A former government official reflected on how public systems often fail to create long-term impact due to frequent transfers and risk aversion, while individuals working directly with communities like Dr. Rajendra Singh can achieve far greater and lasting change by stepping out of their comfort zones.

Addressing a question from an educator, Dr. Singh shared the story of his own teacher, 'Manu Kaka,' who taught him the fundamentals of geo-hydrology not through textbooks but by taking him into the field. Through observing dry wells, fractures in rock, and the role of trees, he learned how groundwater moves, how aquifers function, and how nature signals what it needs. This hands-on learning shaped his life's work and later contributed to the revival of 23 rivers.

Dr. Singh stressed that sustainable education must be rooted in "love with nature" and "respect with nature." Technology and science, are powerful only when combined with common sense, cultural understanding, and community wisdom. He also pointed to the absence of a geo-cultural map of India as a major obstacle, which leads to development models that ignore the unique ecological and cultural fabric of different regions.

Complementing this, Mr. Burman advocated strongly for experiential learning. He described initiatives like the "Green Campus School," where children learn through actions like composting, water harvesting, solar installations, and butterfly gardens. Such experiences, he noted, allow children to internalize environmental responsibility rather than seeing it as a distant concept.

The session concluded with a reminder that the responsibility of protecting the planet rests with the younger generation. Both speakers urged students, educators, and communities to cultivate a sense of stewardship that moves beyond awareness into practice.

"The planet can heal, but only if each of us chooses to act. Sustainability cannot be achieved alone; it needs communities, conviction, and the courage to change."

~Mr. Pradip Burman

"A true teacher doesn't give you answers. They awaken your curiosity and make you look at the earth with new eyes."

~Dr. Rajendra Singh

An Evening with
Dr. Purnima Devi Barman
Champion of the Earth

Conflict to Co-existence: The Story of the Hargila Army

Dr. Purnima Devi Barman, recipient of the UN's Champion of the Earth Award, delivered an inspiring session on community-led conservation and her celebrated work to protect the Greater Adjutant Stork, locally known as the Hargila. She opened with an appeal to safeguard species, landscapes, and habitats, and drew on her personal journey to highlight the power of collective action.

Dr. Barman recounted how, in 2007, the global population of the Hargila had dwindled to roughly 450–500 birds. Their association with bad luck had led to widespread persecution, including the felling of nesting trees. A defining moment came when she witnessed a nesting tree being cut, prompting her to dedicate herself to changing community attitudes and protecting the species.

Her conservation work grew from close engagement with local villagers, especially nest-tree owners. When women were hesitant to join formal meetings, she invited them to traditional cooking festivals, which became a gateway for deeper participation. This approach helped build trust, emotional connection, and eventually a committed network of rural women- now known as the Hargila Army. Today, this grassroots movement has expanded to more than 20,000 women across Assam.

The initiative blends science, tradition, culture, and empowerment. The Hargila Army leads village-to-village awareness programs, rescues injured birds, restores ecological memories with children, and uses traditional weaving and design to spread conservation messages while creating livelihood opportunities. Their efforts have helped raise Assam's Hargila population to over 1,800 birds and contributed to the species being downlisted by IUCN from "Endangered" to "Near Threatened."

Dr. Barman encouraged young people to take up conservation initiatives in non-protected areas and to engage with the Hargila Learning Centres, which promote creativity and environmental education. She closed by emphasizing that successful conservation begins with people, community leadership, and steady, long-term engagement, reminding the audience that rural women are central to this change.

"Spread your wings and dream big like the Hargila bird."

~Dr. Purnima Devi Barman

Day 2

18 September 2025

Plenary 7

Youth For Earth Conclave and Award Ceremony

Background

The Youth for Earth (Y4E) Campaign, a flagship initiative under the International Conference on Sustainability Education (ICSE), has successfully established itself as a leading youth engagement program dedicated to fostering environmental awareness and action. Entering its 6th edition in 2025, the campaign continues its mission to empower young leaders as agents of change for a sustainable future.

Led by the Mobius Foundation in collaboration with The Climate Reality Project India & South Asia, Y4E provides a dynamic platform for young innovators to showcase practical solutions, share ideas, and collaborate on projects that promote sustainability at local, national, and global levels. Over the years, the campaign has witnessed remarkable growth, inspiring thousands of youth participants across India and South Asia to take part in building a greener future.

Snapshots of Y4E

- **4000+** Youth Engagement
- **300+** Project received
- **40+** Project Awardees
- **5+** Countries Participated

Aligned with the 7th ICSE theme, "Sustainability Education for Green Jobs," the Y4E 2025 campaign empowers young minds with the skills and innovation needed to build a sustainable future. By promoting actionable, youth-driven projects in areas like renewable energy, waste management, and green entrepreneurship, Y4E fosters hands-on learning and creativity preparing the next generation for meaningful green careers and advancing the global transition toward a net-zero world.





Objectives

- To empower young leaders to take actionable steps toward sustainability.
- To showcase youth-led innovative projects and ideas addressing environmental challenges.
- To foster collaboration and networking among young changemakers, educators, and experts.
- To integrate sustainability education with practical action through youth engagement.
- To align with ICSE's vision of advancing sustainability education and supporting SDGs 4, 6, 8, 12, 13, 14, and 15.

Speakers

Moderator:
Mr. Bhavesh Swami, Lead, Clean Energy Policy & Engagements, CRP

Welcome Address:
Mr. Aditya Pundir, Director, Climate Reality Project India & South Asia

Introductory Remarks:
Dr. Atoho Jakhalu, Director, Climate Studies and Knowledge Solutions Centre, Government of Nagaland

Launch of Comic Book on Everyday Climate Change authored by Mr. Nikhil Kamat, Content & Communication Strategist, and National Coordinator - Communications, The Climate Reality Project

Summary

Mr. Bhavesh Swami, warmly welcomed everyone to the Youth for Earth plenary a special session dedicated to celebrating and felicitating young innovators whose projects were selected through the Y4E Campaign and presented at the ICSE platform. The session aimed to promote and encourage youth participation by providing a stage for young changemakers to showcase their sustainability-driven projects before environmental leaders, educators, and policymakers.

Mr. Bhavesh Swami, Lead, Clean Energy Policy & Engagements, CRP

The plenary paid tribute to Professor M.S. Swaminathan, commemorating his centenary, the visionary who made India food-secure, reflecting his spirit of innovation through the creativity of today's youth. Mr. Bhavesh Swami opened the session with a heartfelt recitation of Gulzar's poem, celebrating the magic of soil and Mother Earth a tribute to





nature's resilience and Dr. Swaminathan's legacy. The inspiring start set a powerful tone, honouring youth-led innovations and their pivotal role in advancing sustainability and environmental stewardship.

"Your ideas may begin as a single seed, but when nurtured with courage and compassion for the planet, they can bloom into solutions that change the world."

~Mr. Bhavesh Swami

Mr. Aditya Pundir, Director, Climate Reality Project India & South Asia

Mr. Aditya Pundir, opened the session by addressing the pressing reality of climate change, citing the recent floods in Dehradun and Kashmir as reminders that its impacts are no longer distant threats but current realities. He emphasized that awareness alone is not enough immediate, collective action is essential, especially in reducing emissions across all sectors, including energy, agriculture, industry, and daily life.

Highlighting the role of youth, Mr. Pundir shared that initiatives like Youth for Earth aim to inspire young people to become solution-seekers and changemakers, capable of driving sustainable transformation through innovative ideas ranging from small, everyday actions to large-scale projects.

He spoke about the Green Campus Program as a key initiative integrating sustainability into education and nurturing young environmental leaders. By offering recognition, mentorship, and seed funding, the program empowers youth to turn ideas into impactful projects. Concluding with a message of hope, Mr. Pundir urged young minds to act now for the future of our planet and generations to come.

"The reality of climate change is urgent; awareness is no longer enough; action is the need of the hour."

~Mr. Aditya Pundir

Dr. Atoho Jakhalu, delivered inspiring introductory remarks, sharing insights from the Mobius Young Climate Leaders (MYCL) for Himalayan Development Project, supported by the Mobius Foundation. Representing the Government of Nagaland, he emphasized how climate conversations in the Northeast have evolved from theory to practical, community-driven action. The region, home to one-fourth of India's forest cover and part of the Indo-Burma Biodiversity Hotspot, now stands as a model for collaborative climate leadership.

Dr. Atoho Jakhalu, Director, Climate Studies and Knowledge Solutions Centre

Dr. Jakhalu highlighted how the MYCL initiative has united seven state governments, NGOs, academic institutions, and civil society under a shared vision for sustainable development. On behalf of 63 young professionals, he expressed gratitude and pride, underscoring the power of youth participation in driving real change. With the Mobius Foundation's support, the team is developing a common framework for a regional adaptation plan, envisioned to contribute meaningfully to national climate policy.

"The climate narrative is shifting from disaster to opportunity, and it is our young leaders who are transforming this vision into action, turning the Himalayas into a beacon of resilience and green innovation."

~Dr. Atoho Jakhalu

Launch of Comic Book on Everyday Climate Change

The session also featured a special book launch celebrating youth-led climate storytelling. Following last year's release of 365 Days of Climate Action and Birds of Jammu & Kashmir, this year introduced a new comic book on everyday climate change through the eyes of a young protagonist. Authored by Mr. Nikhil Kamat, the comic marks the beginning of a series capturing climate experiences across India in an engaging, relatable format. The book was launched in the presence of Mr. Pradip Burman, Dr. Ram Boojh and Mr. Aditya Pundir

JUNIOR CATEGORY: SCHOOLS

1st - Project PeelFlex (Bal Bhavan Public School, Mayur Vihar, Delhi)

2nd - Project Ashitizer (Bharat Mata English Medium Higher Secondary School, Bilaspur, Chhattisgarh)

3rd - Project Ecotree 2.0 (Kikani Vidhya Mandir, Coimbatore, Tamil Nadu)

4th - Project Stepergy: Power From Every Step (Adarsh Public School, Vikaspuri, New Delhi)

5th - Project Nature's Weapon Youth's Mission (Little Flowers Public Senior Secondary School, Shahdara, New Delhi)

SENIOR CATEGORY: COLLEGES / INSTITUTIONS / INDEPENDENT GROUPS

1st - Project EcoCampus: Transforming Waste into Green Resources – Dr. Vishwanath Karad, MIT World Peace University, Pune, Maharashtra

2nd - Project CDP BRICKS – K. Ramakrishnan College of Technology, Tamil Nadu

3rd - Project SAMMAN – Anant National University, Ahmedabad, Gujarat

Winners

Junior Category

1st Prize

Project: PEELFLEX: Waste to Wonder

Team: FlexMinds

School: Bal Bhavan Public School, Mayur Vihar, Delhi

This innovative sustainability initiative transforms discarded banana peels into biodegradable, flexible fiber sheets, offering an eco-friendly alternative to plastic and synthetic materials. Developed through a low-cost, chemical-free, and home-replicable process, PeelFlex empowers students, women, and artisans to convert agro-waste into valuable products such as book covers, wallets, coasters, and packaging materials. The project addresses urban waste management challenges while promoting green entrepreneurship and circular economy practices. By reducing organic waste in landfills and curbing plastic pollution, it contributes to cleaner rivers and sustainable livelihoods. PeelFlex reflects how youth-led innovation and scientific creativity can drive real change, turning everyday waste into a powerful symbol of sustainability and self-reliance.

Problem Identified

- India's banana peel waste (millions of tonnes) drives pollution and methane emissions.
- Plastic packaging and textiles add to microplastic pollution.
- Green alternatives remain costly.

Implementation

- Turned banana peels into durable, flexible sheets using natural binders.
- Crafted eco-products like wallets, bookmarks and textile arts.
- Led peel collection drives in schools.
- Showcased at Bharat Mandapam and gifted samples to dignitaries, including Delhi's Chief Minister.

Impact

- Diverts banana peel waste, cuts methane and replaces plastic.
- Biodegrades in 45-60 days without toxins.
- Enables low-cost, replicable solutions - boost green entrepreneurship.

Winners
Junior Category

2nd Prize

Project: Ashitizer: Turning Waste into Wealth for Cleaner and Safer Hands

Team: Badlaav

School: Bharat Mata English Medium Higher Secondary School, Bilaspur, Chhattisgarh

The project focuses on developing an eco-friendly and affordable ash-based sanitizer to promote hygiene in rural communities and government schools lacking proper handwashing facilities. Utilizing wood ash, a locally available by-product rich in natural cleansing agents like sodium and calcium, the team created a liquid sanitizer through a simple hydrolysis process. This innovation not only promotes health and sanitation but also exemplifies waste-to-resource conversion, supporting a circular economy. Demonstrated across several schools in Bilaspur, the project distributed over 53 liters of sanitizer, raising awareness about hygiene and sustainable practices. Project improving public health, reducing waste, fostering innovation, and empowering communities through local production and entrepreneurship opportunities.

Problem Identified

- Rural schools and communities lack proper handwashing facilities.
- Shared soaps raise infection risk.
- Commercial sanitizers are too costly.

Implementation

- Developed Ashitizer from wood ash and alcohol using a low-cost setup.
- Produced ~53 liters of sanitizer and distributed to 10+ schools and communities.
- Led hygiene sessions to promote handwashing and waste utilization.

Impact

- Turned wood ash into an affordable, biodegradable, chemical-free sanitizer.
- Promoted circular economy by converting waste into wealth.
- Enabled local production, creating rural jobs and supporting cottage industries.

Winners
Junior Category

3rd Prize

Project: EcoTree 2.0

School: Kikani Vidhya Mandir, Coimbatore, Tamil Nadu

The project is designed to combat urban air pollution by mimicking natural photosynthesis through a mechanical tree. The compact system consists of a biodegradable CO_2 filtration unit that captures carbon dioxide and a microalgae-based bioreactor that converts it into oxygen, thus improving air quality and reducing carbon levels. Tested in real-world industrial settings, the prototype successfully demonstrated measurable CO_2 absorption and O_2 generation, equivalent to the output of two young trees. The project aligns with multiple UN Sustainable Development Goals (SDGs 3, 8, 9, 11, 13, 15, and 17) by promoting green technology, sustainable cities, and eco-entrepreneurship. Beyond its technical innovation, EcoTree 2.0 serves as an educational and social tool, engaging communities, inspiring youth, and driving awareness about clean air and climate action. With future plans for solar integration, IoT networking, and large-scale deployment, the project envisions a scalable, science-driven solution for a breathable, sustainable future.

Problem Identified

- Urbanization and deforestation and driving CO2 levels dangerously high.
- Greenery alone can't purify urban air.
- Low-cost, scalable air purification is urgently needed.

Implementation

- Developed EcoTree 2.0 with a CO2 collector and algae bioreactor to convert CO2 into O2.
- Tested in Anaikatti's industrial zone.
- Presented to Pollution Control Board officials for real-world integration.
- Led school outreach to educate children on climate innovation and clean air solutions.

Impact

- Each unit absorbs ~2.5 kg CO2/month = 2 young trees.
- Minimizes waste with the use of biodegradable materials.
- Creates green job opportunities in algae cultivation, device manufacturing and maintenance.

Winners
Junior Category

4th Prize

Project: Stepergy: Power from Every Step

Team: Green Striders

School: Adarsh Public School, Vikaspuri, New Delhi

The project, focuses on harnessing renewable energy through piezoelectric technology, which converts mechanical energy from footsteps into electrical energy. The project aims to reduce dependency on conventional energy sources by generating clean power from human movement in high-footfall areas such as schools, metro stations, and shopping centers. The students designed and implemented piezoelectric tiles that capture and store energy to power small devices like LEDs and sensors, promoting awareness about green energy and sustainability. The initiative also serves as a powerful educational tool to demonstrate scientific concepts and foster environmental responsibility among students. By aligning with UN SDGs 7 (Affordable and Clean Energy) and 13 (Climate Action), the project showcases how innovative, youth-driven solutions can contribute to building smarter, energy-efficient, and sustainable cities.

Problem Identified

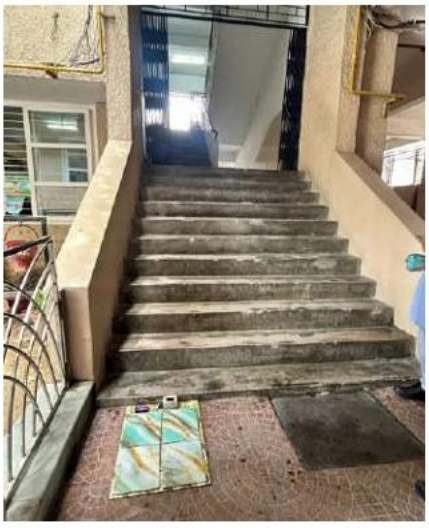
- Rising energy demands due to urbanization and population growth.
- Dependence on fossil fuels causing emissions and pollution.
- Lack of accessible, community driven renewable energy solutions.

Implementation

- Designed piezoelectric tiles with circuits and energy storage.
- Installed in schools to test footstep-powered electricity.
- Powered LEDs and small devices while engaging students and the community.

Impact

- Generated clean energy, cutting carbon emissions.
- Promoted energy efficiency in public spaces.
- Sparked STEM interest through hands-on science demo.
- Created pathways for green jobs and smart city innovation.



Winners
Junior Category

5th Prize

Project: Nature's Weapon, Youth's Mission

Team: Neem Crusaders

School: Little Flowers Public Senior Secondary School, Shahdara, New Delhi

The project, focuses on promoting the traditional and scientific significance of Azadirachta Indica (Neem) as a natural solution for sustainable living. The initiative aimed to create awareness about neem's medicinal, agricultural, and environmental benefits while developing eco-friendly products such as toothpaste, shampoo, facewash, insecticides, and organic pots from neem leaves, bark, and fruits. Through research, surveys, and community engagement, students highlighted neem's role in improving health, reducing chemical use, and protecting ecosystems. The project aligns with multiple UN Sustainable Development Goals (SDGs 1, 3, 8, 12, and 15) by fostering green entrepreneurship, sustainable agriculture, and environmental conservation. It also envisions supporting livelihoods and contributing to India's Ayurvedic and natural product industries through sustainable neem cultivation and utilization.

Problem Identified

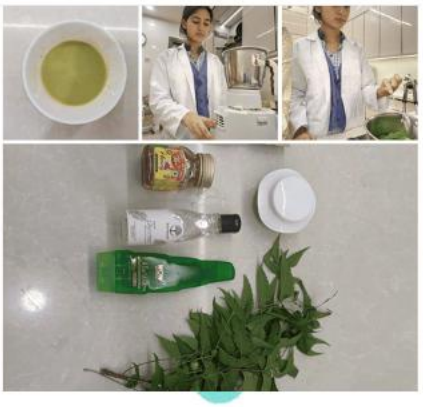
- Limited awareness of neem's health, environmental and economic value.
- Harmful chemicals damage soil, water, and human health.
- Lack of sustainable, eco-friendly alternatives.

Implementation

- Conducted surveys to assess local knowledge of neem's uses.
- Identified and planted neem trees in under-represented areas.
- Collected and processed neem tree parts into eco-products like herbal care items, organic pots, and natural insecticides.

Impact

- Neem plantations supporting sustainable ecosystems.
- Increased awareness about natural, safe products.
- Bridging traditional wisdom and sustainability goals.



Winners

Senior Category

1st Prize

Project: EcoCampus: Transforming Waste into Green Resources

Team: EcoCampus

School: MIT-WPU, Pune, Maharashtra

The project presents a smart and sustainable approach to waste segregation and management using IoT and real-time data analytics. The system features an automated, tunnel-based structure equipped with moisture and level sensors that classify mixed waste into organic and inorganic categories, minimizing manual intervention and contamination of recyclables. The data collected through an ESP32 microcontroller is transmitted to the cloud and displayed via a custom web dashboard, offering real-time insights on waste type, bin fill levels, and area-wise waste generation trends. The project aims to create a data-driven waste management solution that enhances efficiency, supports recycling, and promotes smart city goals. Beyond automation, the initiative also includes a Waste Reduction App that encourages households to track waste habits and earn reward points, promoting citizen engagement and eco-conscious living. Aligned with SDGs 9, 11, 12, and 13, the project exemplifies how technology, innovation, and community participation can drive sustainable waste solutions for a cleaner and smarter future.

Fig 2- Dashboard screen of our app

Problem Identified

- Mixed waste overfills landfills.
- Recyclables get contaminated.
- Public health risks increase.

Implementation

- IoT sensors auto-segregate waste.
- Data sent to the cloud in real time.
- Dashboard shows waste insights.

Impact

- Encourages composting, reducing landfill burden.
- Minimizes Recycling Contamination.
- Safer sanitation work.
- Supports smart city goals.

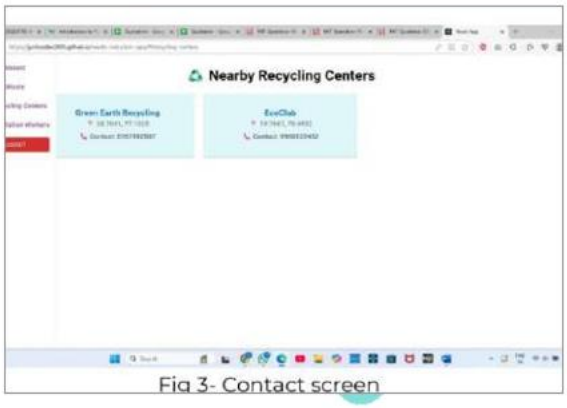


Fig 3- Contact screen

Winners
Senior Category

2nd Prize

Project: CDP Bricks

Team: Eco Builders

School: K. Ramakrishnan College of Technology, Trichy, Tamil Nadu

The project introduces an innovative solution to tackle construction and demolition (C&D) waste and plastic pollution by transforming these materials into sustainable, high-quality building bricks. Using a systematic process of waste segregation, crushing, melting, and moulding, the team successfully developed Construction and Demolition Plastic (CDP) Bricks that match or surpass traditional clay bricks in strength, durability, and cost-effectiveness. This eco-friendly innovation not only reduces landfill waste and carbon emissions but also conserves natural resources by eliminating the need for kiln firing and topsoil extraction. The project creates employment opportunities, promotes green construction practices, and supports affordable housing, making it both socially and environmentally impactful. CDP Bricks contribute to sustainable urban development, the circular economy, and a greener, more resilient construction industry.

Problem Identified

- 150M tonnes C&D waste.
- Plastic pollution is rising.
- Clay bricks deplete resources.

Implementation

- Sorted, crushed, melted waste.
- Moulded into eco-bricks.
- Automated, standardized production.

Impact

- Minimized waste and carbon footprint.
- Conserved resources.
- Affordable housing material.
- Green job opportunities.

Winners
Senior Category

3rd Prize

Project: Samman – LAP India Recycle

University: Anant National University, Ahmedabad, Gujarat

The project, focuses on recycling used sanitary pads into eco-friendly products while promoting menstrual hygiene awareness. Recognizing the dual challenge of menstrual waste management and stigma around menstruation, the project introduced a sustainable recycling process that converts disposed pads into useful materials such as tiles, bricks, and insulation boards, thereby reducing landfill burden and plastic pollution. Alongside the recycling innovation, the initiative conducts awareness campaigns, school workshops, and community drives to educate young girls and women about menstrual hygiene and waste segregation. By integrating technology, social responsibility, and environmental consciousness, Samman creates employment opportunities for marginalized women and supports SDGs, promoting health, gender equality, sustainable consumption, and climate action.

Problem Identified

- Stigma around second-hand goods.
- Irregular distribution and access.
- Unclear pricing, inefficiencies.

Implementation

- 50+ interviews and surveys.
- Piloted slum sales in Ahmedabad.
- Tested pricing and stock models.

Impact

- Affordable access to essentials.
- Reduced stigma on reuse.
- Promoted dignity in recycling
- Recommendations for community stores.

Plenary 8

Powering Sustainable Job Creation with Circular Solutions

Background

In an era where global economies face the dual challenge of environmental degradation and the urgent need for sustainable employment, this session convened policymakers, scientists, corporate leaders, and development practitioners to explore how circular-economy pathways can reshape India's green-job landscape. According to the Central Pollution Control Board (CPCB), India now generates roughly 1.6 lakh tonnes of municipal solid waste every day. This rising waste volume underscores how the country's resource use and waste generation are outpacing its capacity for sustainable processing and disposal, a clear indicator that current consumption trends threaten to exceed ecological carrying capacity. The discussion highlighted the urgent need to move away from the traditional linear "take–make–dispose" model and adopt regenerative systems based on reuse, repair, recycling, and resource efficiency through circular economy practices.

The session demonstrated how circular economy approaches can simultaneously reduce environmental pressures, strengthen economic resilience, and generate future-ready green jobs. It highlighted that circularity is not merely an environmental imperative, it is also a powerful engine for innovation, enterprise development, and inclusive economic growth. The discussion aligned strongly with SDG 8 (Decent Work and Economic Growth), SDG 12 (Responsible Consumption and Production), and multiple climate-related SDGs, making the session timely, relevant, and transformative.





Objectives

- To highlight how circular economy models can tackle environmental degradation while driving sustainable job creation.
- To examine the role of sustainability education and skilling in preparing individuals for circular economy careers.
- To showcase successful circular initiatives across sectors such as construction, electronics, waste management, mobility, and agriculture.
- To recommend enabling policies, financial instruments, and institutional mechanisms for scaling circular solutions aligned with national priorities and the SDGs.

Speakers

Introduction:
Ms. Priyanka Sharma, Head, Programs & Partnerships, Mobius Foundation

Moderator:
Dr. Sudheer Kumar Shukla, Head, Think Tank, Mobius Foundation

Keynote Speaker:
Mr. Amit Verma (IFS), Director, Green Transition, Environment and Climate Change, NITI Aayog, GoI

Panellists:
Dr. Shailaja Donempudi, Distinguished Scientist, Business Development Group, CSIR, New Delhi
Mr. P. S. Sodhi, Senior Director, CEE, Ahmedabad
Mr. Ramnath Vaidyanathan, AVP, Godrej Good & Green, Godrej Industries Group, Mumbai
Dr. Rachna Arora, Director, Climate Change & Circular Economy, GIZ, Delhi

Summary

Ms. Priyanka Sharma set the tone for a strong and timely discussion on "Powering Sustainable Job Creation with Circular Solutions," emphasizing that the circular economy is not merely about reducing waste but about redesigning systems, uplifting communities, and creating green jobs, particularly for marginalized and rural populations. She highlighted the Mobius Foundation's household biogas program with NDDB Dairy Services as a leading example of circularity in action. The

Ms. Priyanka Sharma, Head, Programs & Partnerships, Mobius Foundation





initiative is deploying 5,000 cow-dung–based biogas plants across 3 states, 40 districts, and 1,600 villages, directly benefiting 5,000 rural women and dairy farmers by turning waste into clean energy and sustainable livelihoods. The project demonstrates strong environmental and economic impact, managing 250 tons of organic waste per day, capturing 460,000 tons of methane annually, generating 10,000 m^3/day of biogas, replacing 285 LPG cylinders per day, and producing 14,000 tons/day of organic fertilizer. This initiative not only produces clean energy but also empowers rural women and dairy farmers as green job holders and climate champions. It is showcasing how circular models can reduce waste, build resilience, and empower communities while advancing green job creation.

"This biogas initiative does more than convert waste into clean energy; it empowers rural women and dairy farmers, turning them into climate champions."

~Ms. Priyanka Sharma

Dr. Sudheer Kumar Shukla, Head, Think Tank, Mobius Foundation

As the session moderator, Dr. Sudheer Shukla welcomed the distinguished guests and emphasized the global crisis of overconsumption, noting that the world is consuming resources at 1.7 times the Earth's regenerative capacity and India generates 1.5 lakh tons of municipal solid waste each day. Highlighting the growing demand for sustainable livelihoods, he clarified that green jobs can emerge across all sectors through the right skills and mindset. He outlined that the session would explore how science, business, policy, and community-driven initiatives can unlock circular-economy, based employment and how policy frameworks can accelerate this transition.

"Circularity is not just recycling; it begins with refusing, rethinking, redesigning, and regenerating."

~Dr. Sudheer Shukla

Mr. Amit Verma (IFS), Director, Green Transition, Environment and Climate Change, NITI Aayog, GoI

Mr. Amit Verma delivered the keynote address highlighting India's Net Zero 2070 pathway, its Nationally Determined Contributions (NDC) achievements, mission-oriented diplomacy, and the urgent need for a skilled green workforce. He stressed that circular economy principles must be embedded across education, industry, and policy. The future of green jobs, estimated at 30–35 lakh by 2030, depends on integrating sustainability into design, engineering, and management education, supported by initiatives such as Extended Producer Responsibility (EPR), carbon markets, and a





critical minerals strategy. His message to youth and industry was clear: circularity must become a mindset, a skill, and an everyday practice woven into every role, product, and decision.

Mr. Verma further emphasized that circularity will scale only when it is economically viable, enabled by low-cost technologies and strong policy direction. He added that AI and sustainability are reshaping every job role, making continuous reskilling essential for a just transition. Highlighting NITI Aayog's recent work on future skills, he called for breaking silos between industry, academia, and policymakers to build a cohesive green-job ecosystem where economic opportunity and environmental goals advance together.

"Don't think of circularity as a separate task; embed it in whatever you study, design, produce, or consume."

~Mr. Amit Verma

Dr. Shailaja Donempudi, Distinguished Scientist, Business Development Group, CSIR, New Delhi

Dr. Shailaja Donempudi emphasized that India's circular economy transition must be powered not just by green job seekers but by green job creators who can establish enterprises that valorize waste. She outlined a two-pronged approach: enhancing employability in circular solutions and nurturing entrepreneurs capable of scaling innovations like CSIR's bio-methanation systems and integrated waste-to-value models. While some traditional roles may evolve, the shift toward circularity ultimately generates more jobs than it displaces, much like ongoing AI-driven transformations. She stressed the need for coordinated action across academia, industry, policymakers, and skilling institutions and called for structured national frameworks and digital platforms to scale green enterprises.

She further addressed concerns about job displacement, emphasizing that while resource-intensive production may decline, new opportunities in green sectors rapidly emerge. India is already advancing in areas such as Carbon Capture, Utilization, and Storage (CCUS), waste valorization, e-waste, metal recovery, and mining tailings. The real challenge, she argued, is not the availability of jobs but the lack of collaboration. She emphasized breaking silos and jointly developing structured SOPs will be essential to embed circular economy solutions and skilled talent into India's growth model.

"India needs enterprises that can valorize every fraction of waste, this is where real circular economy jobs emerge."

~Dr. Shailaja Donempudi





Mr. P. S. Sodhi, Senior Director, CEE, Ahmedabad

Mr. P. S. Sodhi delivered an engaging and deeply practical intervention, emphasizing that the circular economy begins with a fundamental shift in mindset i.e. how citizens produce, consume, and dispose. Drawing from extensive field experience, he showcased community-led solutions such as Material Recovery Facilities (MRFs) that reuse Construction & Demolition (C&D) waste and doorstep repair camps run with UNDP and CEE, demonstrating that circularity is "not rocket science" but a practice that can start at home. He highlighted that India's policy landscape significantly shaped by NITI Aayog through its 11 national sector committees and more than 150 multi-stakeholder consultations, has laid a strong foundation for scaling circular solutions. However, these frameworks will be effective only when real-world circular practices are integrated into academic curricula and when youth gain hands-on exposure through structured internships and apprenticeships. Mr. Sodhi further noted that NGOs, when meaningfully engaged in policymaking, can complement NITI Aayog's ecosystem-building efforts by driving community skilling, shaping standards, and accelerating India's transition to a circular, job-creating economy.

He also offered a candid and pragmatic perspective on the role of NGOs, emphasizing their immense potential to build green and circular economy skills among youth and women, provided they are structurally empowered. He noted that many NGOs operate on limited grants, restricting their ability to drive long-term systemic change unless donors prioritize skilling and policy engagement.

> "If we start thinking about what we produce, what we consume, and what we dispose, we automatically become more circular in our actions."
>
> ~Mr. P. S. Sodhi

Mr. Ramnath Vaidyanathan, AVP, Godrej Good & Green, Godrej Industries Group, Mumbai

Mr. Ramnath Vaidyanathan presented the corporate-sector perspective, stressing that green jobs and green skills must be demystified and embedded across every function of modern organizations. He argued that sustainability is no longer a niche role but is becoming central to procurement, R&D, marketing, and operations, making future organizational structures inherently green. While acknowledging opportunities in circular solutions, he highlighted persistent gaps in investment, research, and supply-chain infrastructure, particularly in chemical recycling and industrial circularity, which also present major opportunities for green entrepreneurship. Unlocking circularity at scale will require business innovation, informed consumer demand, and policy incentives that reward circular inputs and outputs.





He further emphasized that correctly valuing resources, especially water, is the fastest way to accelerate circular-economy–driven green jobs. When companies understand the true cost of resource depletion, innovation and investment naturally follow. He reiterated that circularity demands continuous upskilling within organizations and stronger green entrepreneurship across value chains, making sustainability an integral part of every corporate role.

"We need to demystify green jobs, they no longer sit at the fringes; they sit at the center of every function."

~Mr. Ramnath Vaidyanathan

Dr. Rachna Arora, Director, Climate Change & Circular Economy, GIZ, Delhi

Dr. Rachna Arora presented a clear and accessible breakdown of the circular economy landscape, emphasizing the urgent need to engage young students and emerging professionals. Global circular-economy jobs currently contribute only about 5% to the world economy, yet upcoming World Bank findings indicate vast untapped potential. Using the example of a mobile phone, she illustrated how critical materials like tantalum projected to deplete within a few years can only be secured through robust recycling systems supported by strong Extended Producer Responsibility (EPR) policies. Circular economy careers extend well beyond recycling, spanning design, engineering, AI, digital innovation, and crucially, social science roles that bridge formal and informal sectors. She highlighted encouraging government steps to formalize waste collectors and MSMEs and underscored the need for "future-ready talent" that understands the nexus of climate, resources, and energy.

She further stressed that India's transition will not succeed without formally integrating the informal waste workforce, kabadiwalas, aggregators, and multi-tier value chain actors, who form the backbone of waste valorisation. Initiatives such as the NAMASTE Scheme and successful city models in Kerala, Pune, and Ambikapur demonstrate how formalization can strengthen women-led entrepreneurship and dignified livelihoods. She concluded that the next wave of green jobs will emerge from professionals equipped with interdisciplinary skills for R&D, sustainable finance, and circular enterprise development.

"Circular economy jobs are not just about recycling; they lie in design, digital innovation, and understanding the informal sector."

~Dr. Rachna Arora





Recommendations

1. Integrate Circularity into Higher Education: Embed circular principles into design, engineering, management, and policy curricula to build a skilled workforce for emerging green sectors.

2. Strengthen Industry–Academia Collaboration for Green Jobs: Create hands-on skilling programs in lifecycle analysis, waste management, resource efficiency, and sustainable manufacturing to meet India's green job demand.

3. Promote Circular Economy Entrepreneurship Programs: Develop incubation and funding pathways, especially for youth, to build enterprises in waste valorization, biomethanation, and recycling innovations.

4. Establish a Unified Skilling Ecosystem for Green Jobs: Link academia, R&D institutions, industry, and policymakers under a coordinated national framework to provide targeted circular skills training.

5. Integrate Circular Economy into Academic Curriculum: Partner with NITI Aayog to embed eco-design, repair systems, and waste-to-value modules into mainstream curricula.

6. Strengthen Internship & Apprenticeship Pipelines: Develop a national framework for paid internships in collaboration with NGOs, CSR units, and circular economy enterprises.

7. Invest in Circular Supply Chains & Applied Research: Prioritize investments in chemical recycling, material science, and agricultural circularity through strong industry–academia–government partnerships.

8. Link Product Value to Circularity Through Incentives: Introduce tax rebates, green credits, consumer discounts, and preferential procurement for circular products.

9. Build "Future-Ready Skills" Across Disciplines: Equip youth with interdisciplinary skills in climate science, resource management, digital systems, and design thinking to meet emerging green job needs.





Plenary 9

Too Many to Sustain?

"If the Earth collapses, there will be no population to debate about. Saving the planet must come before everything else."

~Mr. Pradip Burman, Chairman, Mobius Foundation

Background

India has made remarkable progress in population stabilization, with 31 out of 36 states and union territories achieving replacement-level fertility. However, high-fertility regions such as Uttar Pradesh and Bihar continue to shape the national challenge, with Uttar Pradesh now the country's most populous state at 24.19 crore recording a TFR of 2.4, low modern contraceptive use (44%), and a persistently high unmet need for family planning (13%). These gaps are compounded by deeply rooted social norms, limited last-mile service delivery, and a large youth population entering reproductive age, sustaining population momentum. Against this backdrop, Mobius Foundation's Aakar initiative has partnered with the Population Foundation of India and Janani to strengthen family planning and reproductive health services in some of the most underserved geographies. Through the Umeed project across seven high-fertility districts and Janani's clinical outreach in Uttar Pradesh and Bihar, the initiative now reaches over 1.25 crore people with counselling, enhanced supply chains, skilled frontline workers, and intensive community engagement. The session started with PowerTalk with Mr. Pradip Burman, then followed by an expert panel that situates population stabilization as a central pillar of sustainable development and showcased on-ground models that are reshaping family planning access, social behaviour, and community health outcomes in India's most vulnerable districts.





Objectives

- To deliberate on population trends and their impact on quality employment and a sustainable future.
- To present outcomes of technical support to state governments in improving access, demand, and utilization of Family Planning (FP) and Reproductive Health (RH) services.
- To explore strategies and lessons learned from collaborations with Uttar Pradesh and Bihar that contribute to population stabilization.

Part I

Powertalk on Population Stabilization as a Key Driver for Quality Employment and Sustainability

Prof. Dr. Sonali Kar, Dept. of Community Medicine, KIMS, KIIT University

In Conversation With

Mr. Pradip Burman, Chairman, Mobius Foundation

Summary

In the powertalk, Dr. Sonali Kar opened the dialogue by asking Mr. Pradip Burman how India's rapidly growing population is impacting nature and the environment. Mr. Burman explained that while the Earth is billions of years old and civilization is only 12,000 years old, yet the population has surged from one billion in the 1800s to eight billion today without any increase in land mass. This explosive growth, deforestation, human–animal conflict, shrinking water resources, and accelerated climate change, making population the core driver destabilizing nature's balance.

Prof. Dr. Sonali Kar, Dept. of Community Medicine, KIMS, KIIT University

Mr. Pradip Burman, Chairman, Mobius Foundation

On the role of technology in reversing this damage, he stressed that technological innovation, ranging from AI to advanced recycling methods such as converting plastics to road material or using bacteria break down pollutants is central to restoring ecological balance, supported by community-led efforts like beach and ocean cleanups.

Responding to why population stabilization is vital for India and how Mobius Foundation's initiatives contribute, he emphasized that the goal is stabilization not "control," a term burdened with historical stigma. India's population has risen from 35 crore at Independence to 140 crores today while land, water, and natural resources have steadily declined. He stressed that women's





education as the most effective pathway to stabilization, citing Kerala's high literacy and low fertility as an example. He further highlighted the Mobius Foundation's initiatives, explaining how the 100-school programme in Uttar Pradesh and Madhya Pradesh empowers girls through education, and how Project Aakar in high-TFR districts provides adolescents with counselling, raises awareness on health issues, and ensures safe access to contraceptives. Together, these efforts demonstrate that empowering girls and young women leads to informed choices, healthier families, and demographic stability.

During the audience interaction, when asked whether population-density–based interventions could aid government policy, Mr. Burman agreed that decentralization is essential and noted that people migrate to cities for jobs. Therefore, creating green livelihood opportunities in rural areas could ease urban density pressures, though this requires parallel development of rural amenities. He concluded that both rural and urban strategies must advance together, as population stabilization and environmental restoration depend on a balanced, multi-sectoral approach.

"Education, especially of young girls, is the most powerful climate action tool we possess. When women are empowered, the planet is protected."

~Mr. Pradip Burman

"Empowering women is not a social agenda; it is the backbone of population stabilization and sustainable development."

~Dr. Sonali Kar

Part 2
Panel Discussion
Showcasing Experiences from Ground Zero

Speakers

Moderator:

Ms. Shilpa Nair, Lead and State Head- UP, PFI

Panellists:

Ms. Shail Kumari, ASHA, Trivediganj, Barabanki District
Ms. Sapna Tiwari, Staff Nurse, Community Health Centre, Trivediganj, Barabanki District
Dr. Amit Kumar, Medical Superintendent, Community Health Centre, Chhapiya, Gonda District
Mr. B. K. Jain, Associate Lead-Programme Implementation, PFI
Mr. Richard Boustred, Country Director, Janani

Summary

Ms. Shilpa Nair, Lead and State Head- UP, PFI

Following Mr. Burman's fireside conversation, Ms. Shilpa Nair opened the panel discussion by presenting the on-ground progress of the Aakar Initiative, highlighting how Mobius Foundation's support has enabled implementation across seven high-fertility districts in Uttar Pradesh and key pockets of Bihar. Ms. Nair explained that although India has largely achieved replacement-level fertility at 2.1, family planning programs remain essential, especially in districts where Total Fertility Rates still range between 3–4+, with widespread unmet need for contraception. She noted the persistent demand-side barriers; myths, fear of side effects, early marriage, and a strong preference for male children, as well as supply-side constraints, including staff shortages, stockouts, and limited access in remote blocks. The seven districts under project Aakar continue to struggle with low modern contraceptive use and poor health-service reach, underscoring the need for coordinated, multi-stakeholder approaches.

She shared that through Umeed, the project has expanded from a single block to 50 blocks, covering a population of 1.25 crore people and directly engaging 13,000 ASHA and ANM workers. Interventions include 102 family planning counseling corners in health facilities, intensive capacity-building programs, interdepartmental convergence across health, IUCD, education, and Panchayati Raj departments, and robust SBCC outreach such as the campaign *"Itni Bhi Kya Jaldi Hai"*.

> "Family planning is about informed choice and access, not just numbers."
>
> ~Ms. Shilpa Nair





Ms. Shail Kumari, ASHA, Trivediganj, Barabanki District

Ms. Shail Kumari an ASHA worker since 2006, recounting her journey from overcoming social resistance to becoming a trusted community advisor. She explained how the training in Umeed Paramarsh Kendra transformed her confidence, enabling her to counsel effectively on modern contraceptives, support her own sister-in-law through Antara use, and facilitate 23 sterilizations, 17 IUD insertions, and multiple Chhaya and Antara clients; achievements that earned her a district award. She highlighted the SBCC campaign "Itni Bhi Kya Jaldi Hai," which uses village film screenings, discussions, and mobile-phone reels to address early marriage, spacing, and emergency contraception.

"Awareness program understanding is slow, but it is powerful."
~Ms. Shail Kumari

Ms. Sapna Tiwari described how the CHC's counselling corner, initially non-existent, now handles structured, consistent family planning sessions. With training from the Population Foundation of India, she and her colleagues have counselled 700–800 clients in nine months, supported 537 deliveries with 247 IUD insertions, and guided Antara users, leading to her recognition as a Star Counsellor. She emphasized that the entire CHC—doctors, ANMs, ASHAs, pharmacists, ward staff, now works collectively to counsel couples from pregnancy through postpartum, ensuring continuity and strong follow-up.

Ms. Sapna Tiwari, Staff Nurse, Community Health Centre, Trivediganj, Barabanki District

"Counselling is not a service; it is a lifeline."
~Ms. Sapna Tiwari

Dr. Amit Kumar, Medical Superintendent, Community Health Centre, Chhapiya, Gonda District

Dr. Amit Kumar offered an administrative and clinical perspective from Chhapiya, one of the most rural blocks, located 55 km from Gonda, Basti, and Faizabad. He candidly admitted that he initially viewed the Umeed initiative as another short-term project. However, he was impressed by the project's sustainability, rigorous follow-up, and its ability to motivate and energize local staff.

He explained that although CHC Chhapiya lacked dedicated counsellors, the project successfully mobilized MSCP staff, nurses, and labour room teams to take ownership of family





planning counselling. With Umeed's technical support, the CHC improved its ranking in the district and created a functional, high-impact model. Dr. Kumar stressed the need to replicate this approach in adjacent underserved districts such as Shravasti and Bahraich, which also face high fertility rates and limited-service delivery.

> "Sustainable change in rural health systems comes not from projects but from partnerships, when government staff and initiatives like Umeed work as one team."
>
> ~Dr. Amit Kumar

Mr. B.K. Jain spoke from a system-strengthening and policy perspective, emphasizing that the Aakar Initiative is intentionally designed to embed itself into the government health system. He highlighted how the project focuses on building long-term institutional capacity by training frontline workers, CHOs, ANMs, facility staff, and district-level teams, while simultaneously strengthening supply chains and ensuring availability of family planning commodities.

Mr. B.K. Jain, Associate Lead-Programme Implementation, PFI

He emphasized that SBCC campaigns work together with government teams, so community action supports the state system rather than functioning separately. Mr. Jain stressed that to achieve durable change, the project must run for a minimum of five years, allowing it to be fully absorbed by the health system. He also shared that several Chief Medical Officers have formally requested expansion into the remaining 44 blocks, acknowledging the strong foundation laid by the project.

> "Strengthening the government ecosystem is the only way to make family planning irreversible."
>
> ~Mr. B. K. Jain

Mr. Richard Boustred, Country Director, Janani

Mr. Richard Boustred highlighted Janani's supply-side intervention, which targets high-fertility districts in Uttar Pradesh and Bihar to improve access to family planning services. Janani manages 10 clinics and 19 outreach teams in Bihar, with targeted interventions in Siddharth Nagar (UP) and Saran (Bihar) under the Aakar Initiative.

He explained that Janani's outreach model includes door-to-door counselling, work with men to create supportive environments, and close collaboration with ASHA and Anganwadi workers. Their distinctive strength lies in their mobile clinical teams comprising doctors

and nurses, who visit PHCs lacking skilled staff or equipment to provide a full range of contraceptive services, including IUCD insertions, clinical procedures, and surgical contraception such as tubal ligation.

He emphasized that increasing awareness is not enough; demand creation through SBCC and social marketing is essential, drawing parallels with private-sector strategies. Janani's work therefore focuses on both generating demand and ensuring robust supply-side service delivery.

> "In districts where the health system struggles, mobile clinical teams become the bridge between intention and access."
>
> ~Mr. Richard Boustred

Recommendations

1. Promote Rural Green Livelihoods to Support Population Stabilization
   - Create employment opportunities in rural green sectors such as waste management, agro-processing, and renewable energy.
   - Reduce migration pressures that contribute to urban congestion and high-density stress.
   - Integrate population stabilization goals with livelihood generation, women's empowerment, and environmental sustainability programs.
2. Strengthen Last-Mile Family Planning Services in High-TFR Districts: Scale up Umeed Pramarsh Kendras and Family Planning Counselling Corners across all CHCs/PHCs in priority districts to ensure timely, respectful, and comprehensive counselling and access to modern contraceptives for every woman and couple.
3. Build Capacity and Motivation of Frontline Health Workers: Invest in continuous, updated training for ASHAs, ANMs, CHOs, staff nurses, and pharmacists to enhance competency on modern contraceptive methods, counter myths and misconceptions, and ensure consistent follow-up with eligible couples.
4. Strengthen Supply Chains and Mobile Clinical Outreach: Ensure uninterrupted availability of contraceptives (Antara, Chhaya, IUDs, condoms) through improved forecasting and stock management. Deploy mobile medical teams to expand access to IUD insertions, Antara services, and sterilization in remote, underserved blocks.
5. Intensify Community Engagement and Male Participation: Expand SBCC campaigns such as "Itni Bhi Kya Jaldi Hai", street theatre, mobile van shows, and village-level engagements to normalize birth spacing, delay early marriage, and break gender stereotypes. Promote male involvement platforms to position family planning as a shared and responsible decision.

> "The planet has not grown, but our population has—from one billion to eight billion. Restoring balance is not a choice anymore; it is a duty to future generations."
>
> ~Mr. Pradip Burman, Chairman, Mobius Foundation

Lightning Talk

Influencer Aalekh Kapoor

Influencer Aalekh Kapoor

Mr. Aalekh Kapoor delivered a short and engaging talk on the power of storytelling in shaping public perception and driving environmental action. He illustrated this through the remarkable recovery of the Greater Adjutant Stork, once pushed towards endangerment due to local superstitions in Assam. Conservationist Dr. Purnima Devi Barman transformed this narrative by weaving the bird into local folklore, festivals, and textiles, mobilizing a 10,000-strong "Hargila Army" of women. This cultural shift turned fear into pride and enabled a dramatic revival of the species.

Using this example, Mr. Kapoor explained why stories matter; while data informs, stories transform. Narratives activate emotional and sensory parts of the brain, making complex issues like climate change more relatable and memorable. He showed how major brands, institutions, and even nations use storytelling to shape identity and belief systems, noting that people remember information up to 22 times more when conveyed through a story rather than raw data.

Drawing from his background in acting and his work as a climate communicator, he shared how storytelling helps cut through information fatigue, humanise environmental challenges, and inspire cooperation. Recognising that climate communication is often weighed down by overwhelming statistics, he turned to narrative-driven content to highlight climate heroes, sustainable startups, environmental history, and lived experiences. Through stories, he emphasised, one can build emotional connection, shift mindsets, and motivate collective action.

"If brands and ideologies can use stories to shape what we believe, why can't we use stories to inspire climate action?"

~Mr. Aalekh Kapoor

Plenary 10

Blue Economy, Blue Jobs: Transforming Livelihoods

Background

The blue economy represents a vital frontier for sustainable development, offering immense potential for economic growth, food security, livelihood, jobs and poverty alleviation through the responsible use of ocean and coastal resources. As pressures on ocean ecosystems intensify due to overexploitation, pollution, and climate change, there is a critical need to transition towards a regenerative ocean economy that balances economic productivity with environmental stewardship. Central to this transformation is the creation of 'blue jobs', which are decent, inclusive, and environmentally sustainable employment opportunities linked to ocean-based economic activities. Blue jobs are the employment opportunities generated by blue economy activities, encompassing diverse sectors like fisheries, marine renewable energy, shipping, tourism, port activities, and marine biotechnology. Today, ocean-based sectors and activities contribute around USD 2.5 trillion to the global economy and support livelihoods for over 3 billion people worldwide. By enabling individuals to participate in and benefit from sustainable ocean sectors, blue jobs play a critical role in reducing poverty, empowering youth and women, and enhancing climate adaptation. To fully realize the potential of blue jobs, strategic investment in sustainability education and skills development is essential. Building a workforce equipped with the technical expertise and specifically in ocean literacy or blue education will enable youth, women, and coastal communities to participate meaningfully in ocean-based sectors. The session explored how the blue economy helps in creating jobs and enhancing livelihoods aligned with the sustainable development goals (SDG 14 life below water) with a focus on blue education, skills development, value chain integration, ecosystem-based management, and innovation in ocean technologies.





Objectives

- To highlight the role and potential of blue economy in generating sustainable employment and entrepreneurship, especially in coastal and marine-dependent communities.
- To explore the integration of blue education and skills development into ocean-based economic pathways, with emphasis on youth engagement and future workforce.
- To examine opportunities for value chain integration and ecosystem-based management that align economic growth with marine conservation and climate resilience.
- To share good practices and experiences on enabling policy frameworks, financing instruments, and governance models that can scale blue job opportunities while embedding equity and sustainability.

Speakers

Moderator:
Dr. Vinita Apte, Founder President, TERRE Policy Centre, Pune

Chair:
Vice Admiral (Retd.) Sunil Anand, AVSM, NM

Panellists:
Mr. Manuel Cira-Felix, Senior Advisor, Citizen of the Ocean, France
Ms. Shweta Khare Naik, Executive Director, Jane Goodall Institute India & Member of UNESCO–IOC Group of Experts on Ocean Literacy
Dr. Suprava Patnaik, Principal Advisor, Climate Action Initiatives, CYSD

Summary

The session was opened by the Moderator Dr. Vinita Apte, who set the tone by highlighting the power of storytelling in communicating the urgency of the blue economy. She invited the panellists and the Chair to share their real-life experiences related to the ocean, blue jobs, and the blue economy, noting that such firsthand insights reveal the true needs, challenges, and opportunities in this sector. Her facilitation encouraged deeper introspection, urging the participants to shift from passive awareness to active ocean stewardship and solution-driven action.

Dr. Vinita Apte, Founder President, TERRE Policy Centre, Pune

"The blue economy will thrive only when we move from conversation to commitment."

~Dr. Vinita Apte

Vice Admiral (Retd.) Sunil Anand, AVSM, NM

Vice Admiral (Retd.) Sunil Anand as Chair of the session, emphasized through powerful real-life experiences that strong policies alone cannot safeguard India's oceans unless they are matched by genuine behavioural commitment. Drawing from his 37 years of naval service, he recounted a 1995 incident where a warship was heavily penalized for illegally discharging bilge's oil and waste near Plymouth, highlighting how even well-trained crews can violate environmental norms. He further described the post-26/11 incidence, it is mandatary to register all Indian fishing vessels with transponders, a measure widely resisted and later undermined when many devices were illegally removed and sold. Through these examples, he stressed that blue economy aspirations depend on responsibility, compliance, and community conviction, not coercion. Underscoring India's vast 11,000 km coastline and millions dependent on the sea, he reiterated that the blue economy is not merely about jobs, it is about safeguarding marine resources, building resilient coastal livelihoods, and ensuring that economic growth aligns with environmental stewardship.

"No law can succeed unless people believe in it, compliance driven by fear will never build responsibility."

~Vice Admiral (Retd.) Sunil Anand

Mr. Manuel Cira-Felix, Senior Advisor, Citizen of the Ocean, France

Mr. Manuel Cira-Felix emphasized that although we live on a blue planet, where nearly two-thirds of Earth is covered by oceans, we often forget our connection to it because it remains mostly out of sight and out of mind. He highlighted that many essential aspects of our daily lives, such as tourism, global trade, shipping, telecommunications, and even the oxygen we breathe, are deeply linked to the ocean. It is important to bridge this disconnect by enabling people to experience and understand the ocean in meaningful ways, remembering that while not everyone sees the deep sea, the high seas, or underwater life, but we all depend on them. Mr. Cira-Felix concluded that meaningful progress toward a sustainable blue economy can only happen when diverse stakeholders work together, break silos, and empower young ocean leaders to innovate, collaborate, and take action for the future of the ocean.





"We live on a blue planet, yet the ocean remains out of sight and out of mind for many. Even though it shapes our climate, drives global trade, fuels tourism, enables communication, and provides the oxygen we breathe, its value often goes unnoticed."
~Mr. Manuel Cira-Felix

Ms. Shweta Khare Naik, Executive Director, Jane Goodall Institute India & Member of UNESCO–IOC Group of Experts on Ocean Literacy

Ms. Shweta Khare Naik opened with a powerful experiential activity that reminded the audience of humanity's deep biological connection to the ocean. She highlighted the critical yet invisible role of microscopic plankton such as Prochlorococcus, which produces nearly 20% of the Earth's oxygen, underscoring the paradox of living on a blue planet while remaining disconnected from its reality. She described the ocean as a colossal "blue engine," noting that India's 11,000-kilometre coastline supports a blue economy valued at ₹2.3 trillion and contributes 4% to the national GDP. With 8% of India's fisheries exports moving by sea and oceans carrying 90% of global trade, the scale is immense, yet the country is not fully prepared to harness this potential, making ocean education more urgent than ever.

She concluded by announcing the launch of Blue Schools India, in collaboration with IOC-UNESCO, to build ocean literacy and skills among young learners. Her message positioned ocean education not merely as an academic subject but as a collective societal responsibility.

"The ocean breathes for us, the least we can do is protect the system that keeps us alive."
~Ms. Shweta Naik

Dr. Suprava Patnaik, Principal Advisor, Climate Action Initiatives, CYSD

Speaking from lived experience working with coastal communities in Odisha, Dr. Suprava Patnaik grounded the discussion in reality by highlighting how climate change, cyclones, sea-level rise, and coastal erosion threaten millions relying on the ocean. She argued that the blue economy is not an economic concept for these communities, it is survival. While Odisha holds immense potential for blue jobs across mangrove restoration, seaweed farming, eco-tourism, and renewable energy, the true value of the blue economy lies in dignity, inclusion, and resilience.

Finally, the panel collectively urged the audience to recognise that the future of the blue economy depends on collaboration, youth engagement, and a shared commitment to protect the ocean.





They affirmed that the transition must be just, inclusive, and anchored in respect for ecosystems and communities that depend on them.

> "For coastal communities, the blue economy is not only a policy agenda, but also a lived reality."
>
> ~Dr. Suprava Patnaik

Recommendations

1. Build Ocean Literacy and Awareness at Scale: Develop accessible and experiential learning platforms to strengthen public understanding of ocean systems, emphasizing coastal communities, youth, and schools.

2. Strengthen Behavioural Change and Community Stewardship: Implement long-term engagement programmes and incentive systems to encourage sustainable fishing, waste reduction, and responsible maritime practices among coastal communities.

3. Enhance Compliance and Marine Governance: Deploy real-time vessel tracking, tamper-proof monitoring systems, and enforce strict penalties for illegal discharge and unregistered fishing activities to strengthen coastal regulation.

4. Empower Youth as Blue-Economy Catalysts: Establish a national blue-skills pipeline offering training, apprenticeships, and innovation grants supporting careers in ocean research, technology, conservation, and emerging blue-economy sectors.

5. Ensure Inclusive and Equitable Ocean Governance: Embed women, youth, and indigenous knowledge holders in policy consultations and leadership roles to ensure fair representation and culturally aligned decision-making.

6. Scale Nature-Based Climate and Livelihood Solutions: Expand mangrove restoration, seaweed farming, sustainable aquaculture, and eco-tourism as resilient employment pathways that enhance carbon sequestration, biodiversity, and local incomes.

7. Promote Sustainable and Responsible Blue Industries: Support circular and low-carbon marine sectors, shipping, tourism, renewable energy, biotechnology, ensuring growth aligns with climate resilience and ecological protection.

8. Foster Cross-Sector Collaboration and System Integration: Establish formal coordination mechanisms between government, private sector, academia, and civil society to break silos and accelerate research, innovation, policy alignment, and implementation.





Plenary 11

Climate Action & Green Jobs In Emerging Sectors

Background

The escalating impacts of climate change demand a decisive shift in the way economies grow and evolve. In this context, climate action and green jobs are not only environmental imperatives but also critical economic strategies. Commitments under international frameworks such as the Paris Agreement target of limiting warming to 1.5 °C, and the Nationally Determined Contributions (NDCs) of countries, underscore the urgent need to transition towards low-carbon, resilient economies. This transition creates unprecedented opportunities for sustainable employment across emerging sectors such as renewable energy, circular manufacturing, nature-positive agriculture, green infrastructure, electric mobility, and digital sustainability, supporting both climate goals and inclusive economic growth. The World Economic Forum's 2025 Future of Jobs Report anticipates that climate adaptation alone will generate more than 5 million jobs globally by 2030, with mitigation adding another 3 million, and energy innovation contributing an additional 1 million. However, realizing this potential requires addressing critical gaps in sustainability education, vocational training, and skill development, particularly in the Global South. Without a well-prepared workforce and informed citizenry, the green transition risks being stalled or becoming inequitable. Considering that sustainability education is the foundation for climate action and green job creation; this session explored the intersection of climate action, employment, and education, focusing on how emerging green sectors can become engines of equitable economic growth, environmental resilience, and just transitions.





Objectives

- To highlight the role of climate action and green jobs as dual strategies for addressing environmental challenges and advancing inclusive economic growth.
- To examine how emerging sectors such as renewable energy, waste management, sustainable agriculture, green infrastructure, e-mobility, green manufacturing, digital sustainability, environmental consulting and carbon markets are creating new employment opportunities.
- To discuss the importance of sustainability education, vocational training, and skill development in preparing youth and communities for green transitions.
- To share innovative models, policies, and partnerships that link climate action with workforce development and job creation.

Speakers

Chair & Moderator:

Mr. Anirban Ghosh, Professor & Head, Centre for Sustainability, Mahindra University, Hyderabad, Telangana

Keynote Speaker:

Shri Upendra Tripathy, Former Secretary, MNRE, and Founding Director General Emeritus, International Solar Alliance, Government of India

Panellists:

Dr. Kalpana Seethepalli, Director of Sustainable Finance for Asia Pacific, Middle East and Africa, Deutsche Bank, Singapore

Dr. Swarna V Kanth, Chief Scientist and Head, Centre for Human and Organisational Resources Development, CSIR-CLRI & Professor, Academy of Scientific and Innovative Research, Anna University, Chennai

Dr. Anil Gupta, Project Director Adapt., DMIR, ICARS IIT Roorkee NCR Campus, Greater Noida

Summary

Mr. Anirban Ghosh opened the session by observing that discussions on green jobs often remain narrowly focused despite the vast and evolving opportunities across the sustainability sector. He highlighted Mahindra University's integration of climate-focused courses into engineering curricula, while management students are trained to measure, analyse, and report climate impacts without greenwashing and to develop responsible green business strategies. Drawing

Mr. Anirban Ghosh, Professor & Head, Centre for Sustainability, Mahindra University, Hyderabad, Telangana

parallels from the Mahindra Group's own sustainability commitments, such as electric mobility and green revenue, he illustrated how classroom learning is connected to real-world practice. He concluded that India's progress is strengthened by shared learning across institutions and substantial work is happening across India in environment, social, and governance education.

"Real progress begins when education and industry learn from each other, that is how climate solutions move from classrooms to companies and finally to communities."
~Mr. Anirban Ghosh

Shri Upendra Tripathy, Former Secretary, MNRE, and Founding Director General Emeritus, International Solar Alliance, Government of India

Delivering the keynote address, Shri Upendra Tripathy emphasized that sustainability education must shift from theory to action. Using a simple challenge, offering ₹1,000 to any student wearing a solar-powered watch, he illustrated how climate awareness often fails to translate into practice. Through anecdotes, he highlighted gaps in communication, over-reliance on AI, technological complexity, limited access to source codes, gender imbalance in renewable sectors, and outdated teaching systems that lag behind fast-evolving technologies.

He stressed that education must remain aligned with technical advancements, gender equity, and hands-on skills, ranging from solar repair competencies to cutting-edge research in perovskite and quantum-dot solar technologies that aim to double efficiency and drastically reduce energy costs. His keynote reinforced that the future green workforce will require innovation-driven curricula, practical skill-building, and inclusive skilling pathways.

"As coal phases down, we must prepare our workers through reskilling and reintegration into emerging green sectors."
~Shri Upendra Tripathy

Dr. Kalpana Seethepalli offered a compelling perspective on the low-carbon transition, reframing it as a phase rich with emerging opportunities rather than job loss. She explained that upstream, midstream, and downstream segments of the transition, each present distinct career pathways. Upstream, she noted the rising need for minerals like lithium, cobalt, nickel, and rare earth elements, where skills from fossil fuel sectors can be redeployed. Downstream, she highlighted opportunities in solar and wind equipment disposal and mineral recovery from e-waste. In the midstream, she pointed to the growing demand

Dr. Kalpana Seethepalli, Director of Sustainable Finance for Asia Pacific, Middle East and Africa, Deutsche Bank, Singapore





for specialized offshore wind installation vessels, currently a bottleneck in the global wind sector.

Dr. Seethepalli emphasized that opportunities span engineering, trades, management, finance, strategy, and communications. Although the future job landscape is still evolving, one certainty is the need for strong guardrails against greenwashing. She highlighted growing roles in emissions measurement, carbon accounting, sustainability audits, and transition law, and noted that integrity-based systems, including blockchain-enabled tools, will be critical to the future green economy. She also cautioned against broad, generic training programs, stressing that "training has value only when tied to a defined role and real outcome." She advocated for outcome-oriented capability building that aligns institutions, industries, and government frameworks. Using regenerative agriculture as an example, she explained how emissions accountability and value-chain traceability can turn sustainability intentions into mainstream practice. Her strongest argument centred on additionality, emphasizing that genuine climate impact requires meaningful added value rather than relabelling existing roles.

"Without integrity, accurate emissions measurement, credible carbon accounting, and strong legal frameworks, the green economy will slip into greenwashing."
~Dr. Kalapana Seethepalli

Dr. Swarna V Kanth, Chief Scientist and Head, Centre for Human and Organisational Resources Development, CSIR-CLRI & Professor, Academy of Scientific and Innovative Research, Anna University, Chennai

Dr. Swarna V. Kanth highlighted that although the leather industry is often criticized, it is rapidly evolving through innovation and mandatory sustainable practices. She noted that nearly 80% of the workforce in footwear, garments, and leather goods is women, making the sector a significant driver of women's employment. She highlighted Central Leather Research Institute's (CLRI) shift from processing hides to developing next-generation materials, non-metal technologies, and eco-friendly production systems. She emphasized that great products emerge from "healthy hands, happy hearts, and smiling faces," and showcased examples such as student-designed water-resistant farm footwear.

Dr. Kanth reiterated that most conventional jobs can evolve into sustainable ones through innovation, research, and purpose-driven design. Drawing on industry-academia collaboration, she illustrated how traditional sectors can find greener pathways. Her examples demonstrated how sustainability can add value even in everyday occupations. She concluded that green jobs must be seen as engines of prosperity, innovation, and societal well-being, noting that "almost every job can become sustainable if we believe it can, and if innovation leads the way.

"Great products come from healthy hands, happy hearts, and smiling faces."
~Dr. Swarna V. Kanth





Dr. Anil Gupta, Project Director
Adapt., DMIR, ICARS IIT Roorkee
NCR Campus, Greater Noida

Dr. Anil Gupta emphasized that the future of green jobs extends far beyond conventional roles and must reflect the urgent realities of disaster risk management and climate adaptation. Citing recent disasters in Dharali, Kishtwar, and global wildfire events, he explained that climate action demands rapid upskilling, blending gradual transitions with fast-paced adaptation. He argued that green jobs are not limited to technical sectors but also include roles in early warning systems, wildlife protection, innovation, and community-based solutions. He highlighted IITs as critical hubs for innovation, startups, and skill development, capable of driving next-generation green solutions. He stressed that green job creation requires rigorous carbon footprint audits, market relevance assessments, and a stronger focus on adaptation-focused careers accessible to both high-skilled professionals and community-level workers.

Dr. Gupta emphasized that the transition is more complex than a simple shift from old to new roles. The need to audit carbon footprints across all occupations is essential, as even everyday professions influence environmental outcomes through their practices and choices. He cautioned that while many green jobs exist, some traditional roles are at risk due to low market value. Mitigation -oriented roles like carbon auditing may remain specialised, while adaptation-focused jobs offer greater inclusivity. He urged that entrepreneurship plans and government schemes prioritize greener options and insisted that unless green-job conditions are integrated into programmes, academic discussions will not translate into real impact.

> "Institutions like IITs must drive the paradigm shift in climate skills by linking innovation and entrepreneurship to real ground-level change."
>
> ~Dr. Anil Gupta

Recommendations

1. Embed Hands-On Climate Skills in All Training Programmes: Introduce mandatory practical modules such as solar installation, carbon measurement, adaptation planning, and green technology labs to ensure climate knowledge translates into field-level action.

2. Accelerate Workforce Preparation for Emerging Green Technologies: Develop focused skilling tracks in enhanced rock weathering, hydrochar/biochar systems, perovskite and quantum-dot applications, critical mineral recovery, and offshore wind engineering.

3. Strengthen Integrity and Accountability in the Green Economy: Establish national standards for carbon accounting, emissions auditing, and ESG reporting. Train students and professionals in blockchain, fintech tools, sustainability audits, and environmental law to counter greenwashing.





4. Expand Women-Centered Green Skilling Across Sectors: Prioritise training for women in renewable energy, climate-tech start-ups, and leather MSMEs, ensuring access to modern equipment, quality standards, and entrepreneurship pathways.

5. Green the Leather Value Chain Through Technology Adoption: Fast-track the use of hazard-free chemicals, non-metal materials, and modern eco-friendly production systems across tanning, footwear, garments, and accessories to strengthen sector-wide sustainability.

6. Mainstream Climate Adaptation Skills at Technical and Community Levels: Create certification programmes on disaster-resilient infrastructure, early warning systems, water-efficient construction, and nature-based solutions to ensure that green jobs reach local and rural workers.

7. Mandate Green Job Mapping and Carbon Footprint Audits for New Roles: Require institutions and industries to identify the carbon impact of job tasks and integrate low-carbon protocols, ensuring new roles, innovations, and entrepreneurship meet measurable mitigation or adaptation goals.





Plenary 12

Agro-Ecosystem & Biodiversity: Pathways for a Greener Tomorrow

Background

Agro-ecosystems are at the heart of sustainable development, balancing the need for food security with the preservation of biodiversity and natural resources. They, together with biodiversity, form the foundation of food security, ecosystem services, and climate resilience. However, soil degradation, pollinator loss, and monoculture practices threaten both livelihoods and ecological balance. Since terrestrial biodiversity is closely linked to agro-ecosystems, the urgency to reimagine food systems through regenerative practices is both ecological and economic. The rise of the global green economy presents a unique opportunity to align biodiversity conservation with green job creation, particularly in rural and peri-urban regions. India's agro-ecosystems are at a pivotal crossroads, where ecological restoration and economic opportunity converge to shape a regenerative future. With more than 46.1% of the population dependent on agriculture, the sector holds immense potential to drive biodiversity conservation while catalysing green employment. By integrating sustainability education with green job pathways, communities can transition to regenerative agriculture that preserves biodiversity and creates livelihood opportunities. This session deliberated on the interconnections between agro-ecosystems, biodiversity conservation, and the emerging landscape of green jobs. As agriculture continues to be both a contributor to and a victim of environmental degradation, it is imperative to transition towards more sustainable, biodiversity-friendly farming practices. Enhancing sustainability education can prepare next generation with the green skills needed to protect ecosystems, adapt to climate change, and build resilient livelihoods.





Objectives

- To underscore the importance of agro-ecosystem management and biodiversity conservation in advancing environmental sustainability and shaping a greener future.
- To examine the role of sustainability education in fostering green skills, preparing youth for emerging green jobs in agriculture and environmental sectors, and co-creating resilient agroecosystems.
- To showcase best practices and scalable models that strengthen sustainable agriculture, biodiversity preservation, and climate resilience.
- To foster multi-stakeholder dialogue among youth, educators, policymakers, and practitioners to accelerate green transitions in agriculture and biodiversity conservation.

Speakers

Moderator:
Ms. Archana Chatterjee, Programme Manager, IUCN-India, New Delhi

Keynote Speaker:
Dr S. P. Yadav, Director General, International Big Cat Alliance, New Delhi

Panellists:
Mr. Benoit Theau, Director and Consultant, IGAPURA, Initiatives Climat, France
Mr. Nandou Tenkeu Muller, Acting CEO, KEMIT ECOLOGY & active member of Initiatives Climat network, Cameroon
Mr. Yogesh Sawant, Chief Thematic Program Executive, BAIF, India

Summary


Ms. Archana Chatterjee, Programme Manager, IUCN-India, New Delhi

As moderator, Ms. Archana Chatterjee highlighted the deeply interlinked relationship between agro-ecosystems and biodiversity, India's agrarian landscape holds immense potential for expanding green jobs. She underscored that while agriculture drives habitat conversion, invasive species spread, and agrochemical pressures, affecting over 34% of assessed species and 72% of threatened species, it also remains central to biodiversity conservation and threat abatement. She emphasized that stronger sustainability education, youth-led agricultural innovation, and advancing agri-technologies can enable the sector to transition towards sustainable practices that simultaneously protect biodiversity and create new





employment opportunities for a greener future. There should be clear pathways for accelerating agriculture's green transformation, adopting technology, promoting eco-friendly inputs, diversifying cropping systems, and branding produce from wildlife-friendly landscapes. Biodiversity-focused, farmer-centric approaches are essential for strengthening community resilience and advancing a regenerative, equitable agroecosystem

"Young entrepreneurs returning to agriculture, supported by technology and sustainability education, represent a powerful shift toward greener livelihoods."
~Ms. Archana Chatterjee

Dr. S.P. Yadav, Director General, International Big Cat Alliance, New Delhi

As the keynote speaker, Dr. S.P. Yadav highlighted the rising global urgency to prioritize ecological health, affirming that India's Mission LiFE represents a decisive step towards safeguarding biodiversity and restoring natural systems. He explained that agro-ecosystems, when managed through sustainable practices such as crop rotation, agroforestry, organic farming, and regenerative tree-based models can enhance soil health, increase agricultural resilience, and support diverse wildlife populations. Drawing from his experience, he illustrated how agricultural landscapes intersect with wildlife habitats, citing tiger movements in sugarcane fields and the decline of species like the Great Indian Bustard due to agricultural pressures. Scientific study, supportive policies, and public awareness must converge to ensure India's agricultural systems contribute both to food security and long-term ecological sustainability.

Dr. Yadav explained that many tiger reserves, such as the Pilibhit Tiger Reserve in Uttar Pradesh are surrounded by agricultural fields that often, become habitat for deer, leopards, and tigers, thereby increasing the risk of conflict during harvesting seasons. Conserving apex species like the tiger is essential not only for maintaining ecological balance but also for securing vital ecosystem services, including freshwater availability from more than 600 rivers and streams that originate in or flow through tiger habitats. By refining cropping patterns, reducing pesticide use, and promoting biodiversity-friendly farming, agricultural landscapes can better support tigers, the critically endangered Great Indian Bustard, Sarus cranes, and other species that rely on healthy agroecosystems. Dr. Yadav further emphasized that managing human–wildlife interactions in agro-adjacent landscapes requires practical solutions grounded in ecological principles.

"Agro-ecosystems are not just food-producing systems—they are living landscapes that can either support or destroy biodiversity depending on how we manage them."
~Dr. S. P. Yadav





Mr. Benoit Theau, emphasized the role of Initiatives Climat, an UN-recognized South–South Cooperation Network that empowers green entrepreneurs across French-speaking African nations. He emphasized that Africa, where over half of the active population depends on agriculture and food demand is rising, faces accelerating desertification and biodiversity loss due to unsustainable practices. Through the African Agroecology Cluster and Agroecological Ecofarms, the initiative provides spaces for experimentation, demonstration, production, and training, promoting sustainable land management, integrated soil fertility, and agroecology. Mr. Theau stressed that these nature-aligned approaches not only restore ecological balance but also generate green jobs, positioning agroecology as a transformative pathway for climate resilience and sustainable livelihoods.

Mr. Benoit Theau, Director and Consultant, IGAPURA, Initiatives Climat, France

Mr. Theau further stressed that transforming agricultural systems in the Global South requires structural reforms to make agriculture attractive to youth. He noted that while nearly 80% of Africa's food production comes from family farming, limited access to land, credit, inputs, training, and fair markets makes the sector unattractive to young people. Secure land rights, affordable agricultural credit, and local capacities to produce seeds and fertilizers are essential foundations for sustainable growth. Practical, agroecology-focused training and short supply chains can improve income stability, and South–South cooperation between India and African nations can accelerate knowledge exchange. He concluded by urging governments to revise agricultural action plans to formally integrate agroecology, allocating 35–40% of resources toward scaling sustainable farming practices and engaging youth meaningfully in biodiversity-positive agriculture.

"More than half of Africa's active population works in agriculture, yet unsustainable practices are accelerating desertification and biodiversity loss."

~Mr. Benoit Theau

Mr. Nandou Tenkeu Muller, Acting CEO, KEMIT ECOLOGY & active member of Initiatives Climat network, Cameroon

Mr. Nandou Tenkeu Muller underscored the urgent need for youth-led transformation in sustainable agriculture across India and Africa. Highlighting Cameroon's 80% youth unemployment and India's 36%, he emphasized that young people must embrace agroecology as a pathway to meaningful, environmentally responsible employment. With India projected to reach 2 billion people by 2050 and limited land for expansion, sustainable production models are essential for food security and biodiversity protection. Mr. Muller highlighted circular economy training, such as biochar and eco-friendly charcoal production, and stressed that access to land, credit, training, inputs, and market support is critical for strengthening family farming systems, which currently account for 80%





of Africa's food production. He reinforced the importance of South–South cooperation to accelerate sustainable agricultural transitions.

Mr. Muller stated that advancing sustainable agroecosystems requires stronger structural and institutional support for youth. He recommended large-scale incubation platforms that enable young people to learn, innovate, and access real opportunities within agroecology, biodiversity conservation, and renewable energy sectors. The private sector engagement in such incubators can drive skill-building and green entrepreneurship. He also highlighted technology transfer as essential, advocating adaptation of successful global practices to improve local agroecosystem management and biodiversity protection.

> "It is youth who have to take the lead, change their mindset, and involve themselves in sustainable jobs—and that sustainable job is agro-ecology."
> ~Mr. Nandou Tenkeu Muller

Mr. Yogesh Sawant, Chief Thematic Program Executive, BAIF, India

Mr. Yogesh Sawant emphasized that a thriving economy is inseparable from a healthy biosphere, citing the Dasgupta Review and PWC findings that over half of the global economy depends on nature-based solutions. He highlighted that unsustainable agricultural trends, forest-to-farmland conversions, monocropping, excessive agrochemical use, and poor soil management are degrading agroecosystem services, increasing emissions, and driving biodiversity loss. These pressures increase production costs, reduce yields, and shrink rural job opportunities, fueling urban migration. Mr. Sawant shared BAIF's pilot initiatives, including agroforestry, organic farming, circular agriculture, integrated farming systems, and improved soil management, which restore ecological balance and generate significant economic potential. Agroforestry alone can increase farm returns by 30% (up to 100–200% for smallholders) and create 1.5 million green jobs in India by 2030.

Mr. Sawant illustrated how agroforestry-based livelihood models strengthen rural economies while restoring degraded ecosystems. He described the Wadi agroforestry system introduced among tribal communities in Gujarat, combining fruit trees, multipurpose forest species, legumes, soil conservation measures, and diversified intercropping. Within four to five years, participating families recorded a 50–100% rise in farm production, expanded from two annual crops to eight or nine, achieved year-round income, and witnessed the return of insects, birds, and reptiles that enhanced ecosystem services. Scaled across 96,000 hectares and 2.44 lakh families, the model sequestered an estimated 7 million tonnes of carbon. He emphasized that large-scale adoption depends on incentivizing biodiversity-positive practices, discouraging harmful agricultural activities, improving farmer-accessible technologies, and investing in human capital through





curricula that embed agroecology and climate-resilient farming concepts from schools to universities.

> "A strong economy is only possible with a strong biosphere—nature is the foundation of our growth."
>
> ~Mr. Yogesh Sawant

Recommendations

1. Integrate Biodiversity Safeguards into Agriculture: Promote nature-positive farming and reduce agrochemical dependence through habitat restoration, diversified cropping, and soil biodiversity enhancement, using tools such as IUCN's STAR analysis to identify species-level threats and priority areas.

2. Embed Sustainability and Agroecology into Youth Training: Integrate climate-smart agriculture, biodiversity conservation, and green entrepreneurship into vocational programs, universities, and field-level training to build a skilled cadre of young agri-innovators.

3. Promote Biodiversity-Friendly Farming Across Agriscapes: Adopt wildlife-friendly cropping systems, regenerative and tree-based food models, and low-chemical practices to restore degraded farmland while supporting keystone species such as tigers, cranes, and pollinators.

4. Strengthen Policy Incentives and Public Awareness: Expand subsidies for organic and regenerative practices, conservation funding for habitat protection, and awareness campaigns that communicate the ecological and economic benefits of biodiversity-friendly agriculture.

5. Scale Up Agroecological Ecofarms as Rural Innovation Hubs: Establish and expand ecofarms that serve as centres for experimentation, demonstration, training, and production—empowering rural communities to adopt sustainable land management and generate green livelihoods.

6. Build Cluster-Based Networks for Green Entrepreneurship: Support thematic clusters, similar to the African Agroecology Cluster, to enable knowledge exchange, technical support, and business development for youth-led agroecology and biodiversity solutions.

7. Strengthen Youth Capacity in Agroecology and Circular Economy Skills: Expand targeted training on agroecology, biodiversity management, biochar, and eco-friendly charcoal to create new employment pathways in India and Africa, particularly in regions with high youth unemployment.





8. Enable Youth Access to Land, Credit, Inputs, and Markets: Reform agricultural policies to prioritize youth-friendly access to land, affordable credit, quality inputs, extension services, and fair market linkages to revitalize family farming and improve productivity on limited land.

9. Scale Agroforestry and Integrated Farming Systems Nationally: Integrate agroforestry, organic farming, and circular agriculture into national and state programs to boost productivity, restore ecosystems, and create large-scale green jobs, building on evidence that agroforestry alone can contribute 1.5 million jobs and a ₹1.5 trillion market by 2030.

10. Strengthen Soil Health and Reduce Agrochemical Dependency: Introduce incentives, monitoring, and farmer training to improve soil management, minimize monocropping, and reduce agrochemical use. Enhancing soil carbon and biodiversity will stabilize yields, lower costs, and increase long-term resilience.

Special Session

Mission Life: Green Jobs Through Sustainable Lifestyles

Background

Mission LiFE (Lifestyle for Environment) is a pioneering initiative launched by the Government of India, under the leadership of Hon'ble Prime Minister Shri Narendra Modi. The initiative emphasizes sustainable lifestyles and individual action as critical levers to address the triple planetary crisis of climate change, biodiversity loss, and pollution. Unlike conventional top-down approaches, Mission LiFE adopts a participatory, bottom-up strategy empowering individuals and communities to integrate environmentally responsible choices into daily life. At a time when global economies are transitioning towards low-carbon, resource-efficient pathways, the demand for green jobs is rapidly increasing across diverse sectors, renewable energy, sustainable agriculture, waste management, eco-tourism, and the circular economy. Sustainability-focused education and skill development are thus essential to prepare young people for meaningful green employment. This special session at ICSE 2025 put spotlight on Mission LiFE as a national and global movement that bridges sustainable lifestyles, climate literacy, and green employment opportunities. It explored how Mission LiFE principles, when integrated into education and youth skilling, can nurture a future-ready workforce equipped to drive climate-resilient development.

Objectives

- To promote awareness and showcase Mission LiFE as a transformative movement that links sustainable lifestyles with inclusive climate action.
- To highlight how sustainability education and behavioural change can empower young people to take leadership in creating a green economy.
- To explore best practices and innovative case studies on Misson LiFE.

Speakers

Chair & Moderator:
Dr. Erach Bharucha, Director, BVIEER, Pune

Keynote Speaker:
Dr. Vivek Saxena (IFS), PCCF (Wildlife & Chief Wildlife Warden), Government of Haryana

Panellists:
Dr. Vasanti Rao, DG, Centre for Media Studies (CMS) & Director, CMS VATAVARAN
Ms. Nidhi Ralhan, Principal Strategist, Forum for the Future, New Delhi
Dr. Sagar Datir, Scientist, The Naroji Godrej Centre for Plant Research (NGCPR), Pune
Dr. HVC Chary Guntupalli, Scientist E, LiFE Cell, MoEFCC, New Delhi
Dr. Saurabh Upadhyay, Scientist D, MoEFCC, New Delhi

Summary

Dr. Erach Bharucha, Director, BVIEER, Pune

As moderator, Dr. Erach Bharucha opened the session by grounding the audience in the evolution of environmental education, tracing its journey from nature study, to pollution awareness, to education for sustainable development, and now to livelihood-oriented learning under Mission LiFE. He illustrated this shift through a powerful example from Shirwal, a village near Pune, where a Mission LiFE model has been tailored to rural school children who often migrate to cities in search of work. By building on their familiarity with farming, the program trains students in seed-ball preparation, nursery techniques, cultivation of endemic Western Ghats species, and restoration practices, while integrating these activities with school curricula through systematic content analysis and teacher training.

Dr. Bharucha emphasized how this year-long experiential cycle has already inspired many children to become young green entrepreneurs, reconnecting them with traditional livelihoods such as millet cultivation and wild tuber farming. Science exposure through laboratories, nature trails, and ecological monitoring broadens students' aspirations beyond conventional career paths. He concluded that Mission LiFE will succeed when its diverse objectives are adapted to the unique needs of each community, creating models that simultaneously build skills, restore ecosystems, and reduce distress migration.

> "Mission LiFE reminds us that sustainability is not a government programme, it is a personal discipline. The future of India's environment will be shaped not only by policies but by the everyday decisions we make as citizens."
>
> ~Dr. Erach Bharucha

Dr. Vivek Saxena (IFS), PCCF (Wildlife & Chief Wildlife Warden), Government of Haryana

Dr. Vivek Saxena, underscored that sustainability education today stands at a decisive crossroads, where environmental degradation, climate vulnerability, and unsustainable consumption patterns can no longer be addressed through fragmented efforts. Highlighting Mission LiFE as a global model for mindful and responsible lifestyles, he stressed that the transition from a "use-and-dispose" culture to a circular, regenerative economy must begin with education - formal, informal, and lifelong. Dr. Saxena emphasized that green skills, renewable energy solutions, waste-to-wealth innovations, and nature-positive livelihoods must become integral to mainstream learning. With a powerful reminder that "sustainability is a citizen's movement, not a government program," he called upon institutions, educators, and youth to champion behaviours and practices that allow economy and ecology to thrive together.

"Mission LiFE is not a policy; it is a people's movement that calls each one of us to protect Mother Earth with responsibility and respect."

~Dr. Vivek Saxena

Dr. Vasanti Rao, DG, Centre for Media Studies (CMS) & Director, CMS VATAVARAN

Dr. Vasanti Rao shared her perspective that every job of the future will inevitably become a green job. Drawing from global discussions on nature-based education, she emphasized that education must be reimagined to integrate nature not merely as a tool but as "our classroom, curriculum, and teacher." Connecting her insights to Mission LiFE, she stressed that regenerative lifestyles and sustained behavioural shifts are essential for restoring planetary health. Through vivid examples, including how young entrepreneurs are already building sustainability-focused ventures, she urged educators, policymakers, civil society, and youth to rethink the purpose of education and champion learning models that reconnect people with nature and prepare them for a green and resilient future.

"Sustainability begins with how we live, not just how we work. Mission LiFE asks us to transform our daily habits into planetary responsibility."

~Dr. Vasanti Rao

Ms. Nidhi Ralhan, Principal Strategist, Forum for the Future, New Delhi

Ms. Nidhi Ralhan, delivered an insightful address, highlighting that India's green transition will be driven by the everyday choices of its youth, and not merely by top-down policy. Drawing from her experience in food system transformation and renewable energy transitions, stressed that Mission LiFE must be seen as an employment mission, where sustainable agriculture, bio-input enterprises, responsible renewable energy value chains, and inclusive green innovations can unlock large-scale economic opportunity. She also underscored that green jobs

will not emerge automatically, they must be intentionally designed, supported, and embedded into policy frameworks, financing structures, capacity-building systems, and market linkages. With India's youth dividend at its peak, integrating green skills into education, supporting local enterprises, and building robust monitoring systems will be foundational to creating a resilient, future-ready green economy aligned with the vision of Viksit Bharat 2047.

"The future of India's economy will be built on greener value chains created by the everyday decisions of its youth."

~Ms. Nidhi Ralhan

Dr. Sagar Datir, Scientist, The Naroji Godrej Centre for Plant Research (NGCPR), Pune

Dr. Sagar Dathir, presented an insightful overview of how biodiversity conservation can directly strengthen sustainable development and rural livelihoods. He outlined Naoroji Godrej Centre for Plant Research's (NGCPR) comprehensive approach ranging from field expeditions for native seed collection to ex-situ and in-situ conservation, nursery development, and scientific research. This integrated work addresses challenges such as overexploitation of natural resources, erosion of traditional knowledge, and climate-induced threats to food security. Highlighting the superior climate resilience and nutritional value of wild edible tubers and legumes, he emphasized their potential to tackle malnutrition while creating green livelihood opportunities for tribal and rural communities.

"If farmers and communities are conserving native species, scientists must strengthen and scale this mission for a truly green future."

~Dr. Sagar Datir

Dr. HVC Chary Guntupalli, Scientist E, LiFE Cell, MoEFCC, New Delhi

Dr. H.V.C. Chary Guntupalli, underscored India's leadership in advancing Mission LiFE as a national and global movement for mindful, sustainable living. He highlighted that Mission LiFE, introduced by the Hon'ble Prime Minister of India at COP26 is designed to shift society away from mindless consumption and move towards environmentally conscious choices across seven key themes, from energy and water conservation to reducing waste, e-waste and single-use plastics. Dr. Chary emphasized that the mission operates through a three-tier approach of changing demand, supply, and policy, making sustainability a shared responsibility of individuals, industries, and governments. With India successfully piloting the UN resolution on sustainable lifestyles in 2024, integrating LiFE into school curricula, expanding public campaigns, and nurturing youth engagement through national portals and experiential learning programs, he urged citizens to become active partners in building a pro-planet, climate-resilient future.

"Our ancestors lived sustainably for generations; Mission LiFE is our effort to bring those habits back and pass them on to the next generation."

~Dr. H.V.C. Chary Guntupalli

Dr. Saurabh Upadhyay reflected on his leadership of Mission LiFE during 2023–2024, noting the unprecedented national mobilization achieved under his stewardship, 1.66 million environmental events and 23 million LiFE pledges in just one month. He emphasized that Mission LiFE is not merely a campaign but a collective awakening toward responsible living, which the ministry is now embedding into regulatory frameworks through Environmental Impact Assessment (EIA) policies that mandate green belts, sustainability actions, and environmental events in industries.

Dr. Saurabh Upadhyay, Scientist D, MoEFCC, New Delhi

Dr. Upadhyay led the gathering through the Mission LiFE pledge and highlighted the importance of representing India's achievements prominently at the upcoming IUCN World Conservation Congress in Abu Dhabi. He reinforced shared panel messages cultivating "pro-planet people," reducing plastic, restoring native species, enabling youth-led green jobs, and recognizing that sustainability will inevitably shape every profession of the future.

> "Mission LiFE must move from a campaign to a habit, embedded in industries, institutions, and every individual's daily choice."
>
> ~Dr. Saurabh Upadhyay

Recommendations

1. Integrate Environmental and Nature-Based Learning Across All Education Systems: Embed environmental values, green skills, and nature-based experiential learning into school curricula, higher education, and non-formal learning platforms. This includes field programs, community workshops, teacher training, and lifelong learning opportunities to foster pro-planet behaviour from an early age.

2. Prepare Youth for Emerging Green Jobs and a Sustainable Economy: Strengthen formal, informal, and vocational training systems in universities, ITIs, and community centres. They should include competencies in renewable energy, sustainable agriculture, waste management, bio-input production, circular economy models, and conservation-linked livelihoods.

3. Support Local Green Enterprises Through Financing, Incubation, and Market Linkages: Enable MSMEs, rural entrepreneurs, and women- and youth-led enterprises to participate in green value chains by providing access to finance, incubation support, technology adoption, and market opportunities across agriculture, bio-input manufacturing, circular packaging, and responsible renewable energy services.

4. Promote Community-Led Mission LiFE Actions and Behavioural Change Campaigns: Convert Mission LiFE into a large-scale citizens' movement by encouraging community participation in afforestation (e.g., Ek Ped Maa Ke Naam), waste segregation, reduction of single-use plastic, and adoption of native species. Strengthen outreach through accessible toolkits, local campaigns, and digital platforms like Meri LiFE and My Bharat.

5. Strengthen Conservation Through Native Species, Seed Banking, and Tribal Knowledge Integration: Integrate climate-resilient native crops, wild edibles, and traditional ecological knowledge into agriculture, nutrition programs, and conservation initiatives. Expand seed-banking, school and college plantation drives, and community-led biodiversity restoration to protect genetic diversity and support nature-based livelihoods.

6. Institutionalize Mission LiFE Principles Through Policy and Industry Compliance: Expand LiFE-aligned guidelines across regulatory frameworks such as Environmental Impact Assessment (EIA) policies to mandate green belts, sustainability actions, and environmental engagement activities within industries, ensuring systemic adoption of responsible practices. Showcase these national efforts at global platforms such as the IUCN World Conservation Congress to highlight India's leadership in behavioural and policy-driven climate action.

Special Session

Workshop on Green Careers

"Next-Gen Green Career Pathways: Explore, Connect, Grow"

Background

As the world transitions toward more sustainable and climate-resilient economies, the green economy presents a growing landscape of opportunities for employment, innovation, and entrepreneurship, particularly for young people. However, many youths remain unaware of the career pathways and skills needed to thrive in this emerging sector.

As part of the effort to engage and make young people aware of the growing careers in the green economy, Mobius Foundation hosted a workshop titled *"Next-Gen Green Career Pathways: Explore, Connect, Grow"* on Day 2 of the 7th International Conference on Sustainability Education (ICSE 2025).

Workshop Highlights

Designed to bridge the gap between the growing opportunities in the green economy and youth awareness and preparedness, the workshop introduced young participants to the vast potential within the green economy, equipping them with knowledge about sustainable job prospects, entrepreneurial opportunities, and the critical green skills required to succeed in this evolving field.

Spanning more than 3 hours, the session brought together a diverse panel of 13 expert speakers, including entrepreneurs, practitioners, investors and thought leaders. Speakers represented the ecosystem of start-ups, corporates, incubators and research institutions active across key sectors of the green economy, including climate tech, renewable energy, sustainable products, circular economy, and green finance. The workshop engaged over 150 participants, creating a dynamic environment for learning, exchange, and inspiration.

Workshop Objectives

- Create Awareness: Introduce students and young people to the breadth and depth of the green economy, including emerging industries, future-ready roles, and the global need for sustainability-focused careers.
- Provide Exposure: Offer first-hand insights from professionals, entrepreneurs, and organizations leading the sustainability movement, through interactive and storytelling sessions.
- Inspire Action: Enable young people to view themselves as change agents capable of advancing sustainability through careers in green entrepreneurship, innovation, science, and public policy.

- Awareness on Skills: Orient students with practical tools to kickstart their green career journey, such as leveraging LinkedIn, crafting sustainability-aligned resumes, and accessing learning resources.
- Encourage Collaboration and Networking: Foster meaningful connections among peers and professionals to enable ongoing learning, mentorship, and career growth within the green ecosystem.

Workshop Agenda

Activity	Speakers
Welcome	Ms. Priyanka Sharma Head - Programs & Partnerships Mobius Foundation
Why the Green Economy Matters Inspiring presentation on the landscape, sectors and future of the green economy for youth	Ms. Giorgia Varisco Chief Youth Development and Partnership UNICEF YuWaah
Role of Youth in Building a Sustainable Future Interactive storytelling session highlighting how young people can become change agents in the green economy	Mr. Philip Mathew KM Senior Director, Livelihoods Magic Bus India Foundation
Climate Education: Empowering Youth for Green Careers & Startups Climate education, green economy sectors and pathways	Ms. Karuna Singh Regional Director, Asia Earthday.org
Pathways in the Green Economy: Live Stories & Career Insights Interactive session where real-life green entrepreneurs and professionals share their inspiring journeys and hard-won lessons. Practical insights, insider perspectives and real-world advice on carving out a career in the green economy	Mr. Aalekh Kapoor, Climate Content Creator (Digital Media) Ms. Pooja Malhotra, Founder, ReJean (Sustainable Fashion) Mr. Alok Rai, Founder, Alarth Green (Renewable Energy, Climate Tech) Mr. Manik Dhingra, Co-Founder, Shoonya (Solid Waste Management) Ms. Prerna Prasad, Founder & CEO, Ecoplore (Sustainable Tourism) Mr. Mohd. Suhail, Founder, Athar Packaging (Sustainable Products& Packaging) Dr. Pratishtha Kumari, Research Associate, Mobius Foundation (Development Sector/ Research) Mr. Shitiz Jha, Research Associate, Climate Trends (Climate Finance/ESG)
Leverage LinkedIn – From Crafting Your Green Profile to Unlocking Opportunities	Ms. Tanya Jha Client Solutions Manager LinkedIn

Workshop Proceedings

Welcome

Ms. Priyanka Sharma, Head – Programs and Partnerships, Mobius Foundation

Ms. Priyanka Sharma, Head – Programs and Partnerships, Mobius Foundation

Ms. Priyanka Sharma opened the workshop, Next-Gen Green Career Pathways: Explore, Connect, Grow, by welcoming all participants and setting the context for the day. She emphasized that the climate crisis, while a pressing global challenge, also presents one of the most significant career and business opportunities of our time. Pointing to the rapid expansion of the green economy, she highlighted the emergence of new industries, roles, and innovations that did not exist even a few years ago. Her remarks encouraged participants to view sustainability not only as an urgent need but also as a dynamic space for purpose-driven careers, entrepreneurship, and innovation.

Ms. Sharma introduced the workshop agenda designed to provide a comprehensive exploration of green career pathways. The workshop was structured in three phases to deepen participants' understanding of the green economy, equip them with practical tools and strategies for developing sustainability-aligned careers, and offer real-world exposure through expert-led presentations, real-life career journeys from professionals and entrepreneurs working in the green sector, and a hands-on LinkedIn session focused on creating impactful, sustainability-oriented professional profiles.

Why the Green Economy Matters

Ms. Giorgia Varisco, Chief of Youth Development and Partnership at UNICEF YuWaah

Ms. Giorgia Varisco, Chief of Youth Development and Partnership, UNICEF YuWaah

Ms. Giorgia Varisco, emphasized the urgent need to equip youth with green skills, highlighting a significant gap between interest and preparedness among young people entering the green economy. Drawing on global and national data, she pointed to key sectors such as agriculture, textiles, and waste management that hold vast potential for green employment in India. She also outlined YuWaah's efforts to support youth-led climate action through initiatives like the 'Call for Solutions' and broader partnerships for climate volunteering. Emphasizing a holistic approach, she noted, *"It is important to have green skills but they need to go hand in hand also with life skills and 21st century skills."*

UNICEF YuWaah Launched in 2019, UNICEF's YuWaah is India's first Public-Private-Youth Partnership platform aimed at enabling young people with the skills and opportunities they need to thrive. Working across learning, skilling, employment, and entrepreneurship, YuWaah empowers youth to lead change, particularly in areas like climate action and green entrepreneurship, through multi-stakeholder collaboration and 21st-century skill development.

Role of Youth in Building a Sustainable Future

Mr. Philip Mathew KM, Senior Director, Livelihoods, Magic Bus India Foundation

Mr. Philip Mathew KM spoke about empowering economically disadvantaged youth, especially young women through skills training and job placement aligned with green economy goals. Mobilizing over half a million youth, the Foundation builds work readiness alongside green skills like energy efficiency and waste management. Mr. Mathew emphasized personal agency and expanding opportunities in rural and semi-urban areas to unlock India's economic potential by 2047, saying, *"When people get jobs and bring income to their families, that uplifts households while also strengthening the economy. That is the whole theory of change we are talking about."*

Mr. Philip Mathew KM, Senior Director, Livelihoods, Magic Bus India Foundation

Magic Bus India Foundation established in 1999, bridges the gap between skills and employment by focusing on life and employability skills for sustainable jobs. Through its 'Childhood to Livelihood Program', the Foundation prepares adolescents and young adults (12–24 years) not only to complete their education but also to access meaningful employment, including in emerging green jobs and climate-resilient livelihoods. With a growing emphasis on the green economy, Magic Bus aligns its skill development and entrepreneurship pathways to foster resilient and sustainable futures for young people.

Climate Education: Empowering Youth for Green Careers & Startups

Dr. Karuna Singh, Regional Director- Asia, EarthDay.Org, Kolkata


Ms. Karuna Singh, Regional Director, Earthday.org

Ms. Karuna Singh addressed the importance climate education as the key foundation for equipping youth with skills for green jobs and called for its mandatory inclusion worldwide to empower future generations. She highlighted emerging opportunities in the green economy, such as green accounting and entrepreneurship, stressing that green jobs support both livelihoods and the environment. Ms. Singh urged young people to 'be selfish' in protecting their own future, sharing stories of youth environmental entrepreneurs and underscoring the collective responsibility to address climate change. As she stated, *"You are the first generation that are facing climate change and sadly the last one who will be able to do anything about it... So, when you say that I'm doing it for you I say no. Be selfish, do it for yourself."*

Earth Day Network is a global non-profit organisation that promotes environmental awareness and action worldwide. It mobilizes millions through climate education, community clean-ups, reforestation, and campaigns for sustainable agriculture and fashion. The organization empowers people to protect the planet and support climate-friendly policies for a sustainable future.

Pathways in the Green Economy: Live Stories & Career Insights

The workshop then shifted focus to the second phase titled *"Pathways in the Green Economy: Live Stories & Career Insights"* – an interactive segment where young green entrepreneurs and professionals shared their real-life journeys and hard-won lessons. This part of the workshop offered practical insights, insider perspectives, and real-world advice on how diverse skills and backgrounds could be leveraged to carve out meaningful careers in the green economy, well beyond traditional roles.

Mr. Aalekh Kapoor, Climate Content Creator

Mr. Aalekh Kapoor, shared how his personal bond with nature gradually evolved into a purpose-driven mission to raise environmental awareness through social media storytelling. Without formal environmental education, he used his background in acting and a passion for the planet to craft engaging, relatable climate content that connects with diverse audiences. He highlighted that what matters most is not one's degree, but the mindset and intention behind the work. As he put it, *"Any career can be a green career if you bring the right sensibility and intention to it."* His journey reflects how purpose, adaptability, and continuous learning can transform any profession into a tool for climate action.

Ms. Pooja Malhotra, Founder, ReJean

Ms. Pooja Malhotra, spoke about her transition from corporate advertising to building an eco-conscious brand rooted in purpose. Concerned by the vast waste produced by the textile and plastic industries, she and her partner Ms. Prerna launched 'ReJean' to transform discarded denim and surplus fabrics into handcrafted bags. Their initiative not only reduces waste but also revives fading Indian crafts and supports artisan livelihoods. Reflecting on the entrepreneurial journey, Ms. Malhotra highlighted the value of resilience and intentionality in sustainability, reminding us that, *"no matter what you do, every action counts—whether choosing sustainable brands or starting your own venture."*

Mr. Alok Rai, Founder, Alarth Green

Mr. Alok Rai, shared his path into climate entrepreneurship, underscoring the need to pair innovative technology with genuine passion for sustainable change. He introduced 'Surya Sangam', a platform developed by his team to make rooftop solar adoption easier through AI-based assessments and clear, upfront pricing—removing some of the biggest barriers to clean energy access. Central to his message was the belief that real climate action stems from emotional commitment, not just technical understanding. He put it best when he said, *"The fight against climate change is not just the fight of the head. It's a fight of the heart... Unless you are inspired enough to act beyond this room, this problem will not solve."*

Mr. Manik Dhingra, Co-founder, Shoonya

Mr. Manik Dhingra, addressed the issue of non-recyclable waste by advocating its transformation into Refuse-Derived Fuel (RDF) to ease landfill pressure and provide cleaner alternatives to coal in industries. He also drew attention to the frequently overlooked challenge of wet waste management, encouraging individuals to compost at home as a simple yet impactful step toward restoring soil health and reducing pollution. Shoonya's work spans integrated waste solutions in ecologically sensitive regions of the Himalayan belt, with plans to scale operations to handle waste volumes equivalent to several major cities. In his view, effective waste management is within reach, if we act decisively and together. *"Solving for wet waste management is not as difficult a challenge so if we really put in our best efforts we should be able to do something about it within the next decade."*

Ms. Prerna Prasad, Founder & CEO, Ecoplore

Ms. Prerna Prasad, shared Ecoplore's approach to sustainable tourism, which promotes eco-friendly stays across India guided by two key principles: the use of local, natural construction materials and maintaining at least 30% tree cover on the property. These spaces naturally integrate practices like composting, rainwater harvesting, and greywater recycling—showcasing how sustainability can be woven into hospitality. She introduced 'Van Bhoj', a restored two-acre forest and mud house near Delhi, built entirely from local resources and sustained through simple ecological systems like natural water filtration and reforestation. Once a barren mining site, it now flourishes with biodiversity and serves as a living example of regenerative living. In her words, *"Sustainable living means going as local as possible, from construction materials to water management."*

Mr. Mohd. Suhail, Founder, Athar Packaging

Mr. Mohd. Suhail, discussed how his company transforms industrial and agricultural waste into affordable, sustainable packaging. Launched during the COVID-19 lockdown, the venture has already recycled over 3,000 tonnes of waste, reduced carbon emissions by more than 18,000 tonnes, and served over 70,000 customers across 60 cities—all while turning a profit from the very start. Suhail also introduced the 'Waste Warrior Fellowship,' engaging youth in circular economy initiatives. *He emphasized a crucial mindset shift in sustainability work: "Don't fall in love with your solution — fall in love with the problem."* He also highlighted the importance of staying true to core values and ensuring timely compliance with regulations in green ventures.

Dr. Pratishtha Kumari, Research Associate, Mobius Foundation

Dr. Pratishtha Kumari, shared her experience of developing biodegradable packaging from lignin, a natural by-product, offering a promising alternative to single-use plastics. Actively involved with the Indian Youth Climate Network, a participant in COP28 and working on Extended Producer Responsibility as part of Mobius Foundation, she advocated for circular economy principles and youth climate action, and underscored the importance of lifecycle assessment in defining truly green products. Her perspective was clear: circularity begins with responsible consumption – "refuse first, recycle last"—alongside embracing repair and reuse. She urged a fundamental shift in thinking, reminding us, *"Mindset should be from the moment you decide to create a product—think about how to circulate it."* She concluded by highlighting the expanding green job market and the vital role of individual commitment to sustainability.

Mr. Shitiz Jha, Research Associate, Climate Trends

Mr. Shitiz Jha, commented on the ongoing global debate over the ambiguous definition of climate finance. He pointed out that while the Paris Agreement set a target of $100 billion annually, much of the reported funding comes as loans rather than true climate finance. Developing countries face significant challenges in funding climate projects, often worsening their debt burden despite having contributed little to historical emissions. Shitiz stressed the importance of clear regulations and praised India's draft climate finance taxonomy as a crucial step to prevent greenwashing. He emphasized the principle of 'common but differentiated responsibilities,' which places the onus on developed countries to finance climate action. *He underscored the point: "Climate finance isn't just about money; it's about justice, responsibility, and enabling ambition where it's needed most."*

Leverage LinkedIn – From Crafting Your Green Profile to Unlocking Opportunities

Following the inspiring stories and insights shared by the young entrepreneurs and practitioners, the workshop transitioned into the last phase titled *"Leverage LinkedIn – From Crafting Your Green Profile to Unlocking Opportunities"*, a practical session focused on harnessing LinkedIn to build a purposeful career in the green economy.

Ms. Tanya Jha, Client Solutions Manager, LinkedIn

Ms. Tanya Jha, Client Solutions Manager, LinkedIn, encouraged students to leverage the platform to explore career opportunities in the green sector, highlighting its global reach and broad appeal among recruiters across industries. She shared practical advice on creating a strong profile, including adding a professional photo, crafting a compelling headline and summary, showcasing relevant experiences, and completing LinkedIn Learning courses. Tanya also emphasized the value of authentic networking, urging students to engage meaningfully rather than simply seeking referrals. She concluded with a powerful reminder: *"Be known as someone driven by purpose, not just looking for work."*

Ms. Priyanka Sharma culminated the workshop on an inspiring and reflective note, highlighting that green careers are meaningful, mainstream, and offer a chance to align purpose with economic opportunity. She emphasized that the green careers go beyond social work, spanning future-oriented and resilient professions in clean energy, sustainable fashion, climate technology, and environmental innovation. Drawing from her own experiences, she encouraged students to cultivate curiosity, creativity, and real-world skills through internships and entrepreneurial projects that build confidence and practical skills. Ms. Sharma reminded participants that success is not defined by grades or conventional paths, but by passion, persistence, and purpose and concluded with an encouraging message: *"Whether you dream of launching your own start-up, joining a climate-positive company, or exploring how your skills can contribute, there's a place for you in the green economy."*

The workshop created a rich, multi-sectoral dialogue showcasing vast potential of the green economy for youth. It fostered meaningful networking, knowledge exchange, and collaboration among participants and speakers, inspiring actionable insights and future partnerships.

Plenary 13
Concluding Plenary

Speakers

Closing Statements from Thought Leaders and Partners:
Ms. Karima Kadaoui, Member, The Club of Rome and Co-Founder & Executive President, Tamkeen Foundation for Human Development, Morocco
Mr. Aditya Pundir, Director, Climate Reality Project India & South Asia

Concluding Remarks:
Mr. Praveen Garg, IAS (Retd.) President, Mobius Foundation
Mr. Pradip Burman, Chairman, Mobius Foundation

Address by Chief Guest:
Dr. Rajendra Singh, Waterman of India and President, Peoples' World Commission on Drought & Flood

Vote of Thanks:
Dr. Ram Boojh, ICSE Convener & Advisor, Mobius Foundation

Closing Statement from Thought Leaders and Partners

Ms. Karima Kadaoui, Member, The Club of Rome and Co-Founder & Executive President, Tamkeen Foundation for Human Development, Morocco

Ms. Karima Kadaoui opened by expressing deep gratitude and reflecting on the global difficulty of truly understanding sustainability in education. She illustrated this through a conversation with a young Ethiopian woman who struggled to grasp the concept. To clarify, Ms. Kadaoui described an experiential workshop she facilitates across Morocco's education system. In the exercise, three silent groups are given conflicting missions using the same set of chairs, which inevitably leads to tension and competition. But when a final instruction is added, that each group is equally responsible for the harmony of the whole ecosystem, participants shift from competition to collective awareness. This moment of pause and reflection enables entirely new, previously unimagined solutions to emerge.

She noted that this insight mirrors a broader challenge in global education where the future of work cannot be predicted, and policy instruments alone risk preserving the status quo instead of fostering real sustainability. What is needed is a deeper connection to shared humanity, beauty,




and relational harmony; an orientation that allows new models of governance, economy, and education to take shape. If children learn to recognize beauty in systems, communities, and within themselves, she suggested, they may ultimately stop the destruction of the very ecosphere that sustains life.

Mr. Aditya Pundir, Director, Climate Reality Project India & South Asia

Mr. Aditya Pundir expressed sincere gratitude to Mobius Foundation for hosting the event annually since 2019, creating a unique platform in India and even South Asia, where people can come together to discuss and collaborate on sustainability and education. He emphasized that the strength of the conference lies not only in the formal sessions but also in the informal conversations and networking happening outside the room, where meaningful relationships and future collaborations take shape.

He highlighted that this year's conference was as successful as the landmark first edition, when Mr. Burman launched a pioneering campaign in 2019 to bring sustainability into mainstream discourse. Commending the quality of discussions and the strong set of recommendations produced, he urged participants to review and carry them forward. Mr. Pundir concluded by raising a pressing concern about the rapidly shifting global political landscape. Events such as the Ukraine invasion and change in U.S. leadership have altered the climate landscape and policies. With Europe now moving toward a 5% defence spending target, substantial funds once earmarked for climate and sustainability work are likely to be redirected toward military needs, making progress more difficult. However, such geopolitical shifts are transient, and staying committed to the right path remains essential.

Concluding Remarks

Mr. Praveen Garg delivered the closing remarks, expressing deep appreciation for the intellectually stimulating nature of the conference. He thanked the key contributors, including Mr. Pradip Burman, Dr. Erach Bharucha, Dr. Rajendra Singh, national & international delegates, and the Mobius Foundation team, who worked tirelessly to deliver a successful event. He noted that the quality of discussions has been improving each year and praised the strong set of recommendations produced.

Mr. Praveen Garg, IAS (Retd.), President, Mobius Foundation

Mr. Garg highlighted how the process of framing recommendations has become faster and more efficient under the leadership of experts like Dr. Bharucha, whose dedication and scholarly work is extraordinary and worthy of the highest recognition. The commendable recommendations generated would be further refined for policymakers.

He also acknowledged Mr. Burman's unwavering commitment, attentiveness, and active engagement throughout the sessions. Emphasizing that "knowledge is the new capital," Mr. Garg encouraged participants, especially students, to apply what they have learned, as the future ultimately rests in their hands. He concluded by thanking all attendees for their active participation and heartfelt involvement in the conference.

Mr. Pradip Burman, Chairman, Mobius Foundation

Mr. Pradip Burman delivered the closing address by expressing hope that the two-day conference had opened new avenues for young people, showing them that green jobs and emerging sustainability-focused careers offer opportunities beyond traditional professions. He highlighted that the sessions collectively deepened understanding of how sustainability education can shape green entrepreneurship, youth skills, climate action pathways, and a more resilient future.

Reflecting on the conference theme, "Sustainable Education for Green Jobs," he emphasized that the goal extends far beyond employment; it is about securing a future for the next generation. While debates and differing viewpoints enriched the dialogue, a shared realization prevailed: time is running out, and immediate action is essential. He underscored that the planet itself will endure; the real fight is for human survival and the well-being of generations to come.

He noted with satisfaction that the event also embodied sustainability values in practice. The conference aimed to be carbon-neutral, with an independent agency measuring its carbon footprint, and the launch of the ICSC app reduced printing, saved paper, and provided a modern, eco-friendly alternative. On behalf of the Mobius Foundation, he thanked all participants, speakers, partners, organizers, and attendees for their energy, commitment, and contributions to making the event a success. He concluded by urging everyone to carry the momentum forward and expressed eagerness to welcome them back with stronger partnerships and actionable solutions at the next edition of the conference.

Dr. Rajendra Singh congratulated the audience for dedicating the past two days to imagining a better shared future and wished them long lives filled with sustained passion, purposeful action, and enduring happiness. He offered a heartfelt prayer for Mr. Burman's continued good health, expressing hope that he would live to witness the real-world impact of education for sustainability; an area in which his contributions have been pivotal.

Dr. Rajendra Singh, Waterman of India and President, Peoples' World Commission on Drought & Flood





Addressing the widespread concerns surrounding sustainability often rooted in livelihood insecurity and resource exploitation. He shared insights from his own 50-year commitment to promoting green jobs, recalling his successful Supreme Court petition to close mining operations in the Aravalli range and the subsequent engagement of displaced workers in water conservation efforts. He also outlined his work in soil regeneration and afforestation, underscoring the vast potential India holds in these domains.

He concluded by advocating for an education system grounded in the five fundamental elements including water, earth, air, sky, and sun, and believing that such an approach would naturally cultivate green jobs, strengthen indigenous knowledge systems, and ensure the long-term sustainability of education itself.

Vote of Thanks

Dr. Ram Boojh expressed deep satisfaction and relief at the successful conclusion of the conference, noting the tremendous energy, enthusiasm, and passion demonstrated by the entire ICSC Secretariat, the Mobius Foundation team, and partner organizations who worked tirelessly behind the scenes. He appreciated having the time to share his reflections, acknowledging the inspiring contributions of speakers – especially Dr. Rajendra Singh, whose concise yet powerful remarks captured the essence of the conference: green jobs begin with nature.

Dr. Ram Boojh, ICSE Convener & Advisor, Mobius Foundation

Dr. Boojh indicated a common message that emerged across sessions was that every job must ultimately become a green job if sustainability is to be mainstreamed into livelihoods, enterprises, and the future of work. Sustainability and environmental education, he stressed, are central to quality learning, while global citizenship education is essential for building peace in a world facing multiple planetary crises.

Reflecting on the journey of ICSE since 2019, Dr. Boojh described the conference as a transformative learning experience. He acknowledged Mr. Praveen Garg's consistent push for concrete recommendations for policymakers, educators, and industry, and expressed gratitude for the scholarly leadership of Dr. Erach Bharucha, Professor R. N. Yadava, Dr. Ruchi Sachan, and their team.

The conference serves as a catalyst for strengthening the country's innovation ecosystem, including grassroots innovations exemplified by leaders like Dr. Rajendra Singh.





Dr. Boojh highlighted about sessions and initiatives introduced this year:

- Lightning Talks featuring brief, influential perspectives
- The Youth for Earth Awards, selected from over 300 registrations and 70 screened projects
- The presentation by Mobius Young Climate Leaders from the Northeast, showcasing remarkable youth leadership
- A vibrant sustainability skills training session led by Ms. Priyanka Sharma
- The introduction of carbon neutrality, with a partner agency analyzing the event's footprint and offering to purchase carbon credits reflecting a forward-looking venture in sustainability entrepreneurship.

He expressed heartfelt gratitude to the numerous individuals and organizations who contributed to the event's success. Foremost, he credited Mr. Pradip Burman and Mr. Praveen Garg for their unwavering support, vision, and ability to bring policymakers and global experts into the dialogue. He also acknowledged the inspiration from Waterman Dr. Rajendra Singh, dignitaries from global alliances, vice-chancellors, international delegates, and youth participants.

Dr. Boojh expressed special appreciation for the ICSC Secretariat team - Banajyotsna Baruah, Bhagyashree Keserwani, and Aryan Banerjee, along with the operations, media, and technical teams for their dedicated efforts, particularly over the past 15 days. He also thanked the venue partners, institutional supporters, and the emcee for their valuable contributions.





Committee for Drafting Recommendation (CDR)

Presentation & Adoption of Recommendations:

Dr. Erach Bharucha, Director, BVIEER, Pune

Dr. Ruchi Sachan, Asst. Professor, Miranda House, New Delhi

Dr. Erach Bharucha, Director, BVIEER, Pune

In the concluding session, Dr. Erach Bharucha reflected on the two days of discussions, noting that while technology dominated much of the conversation, the most important takeaway was the urgent gap between where we are and where we need to be. He emphasized that time is running out, making it essential to understand how to move forward, what capacities must be strengthened, and what actions are realistically achievable.

He invited participants to present the work accomplished over the two days, explaining that the collective effort aimed to identify both what can already be done and what further steps are needed. He concluded by thanking the group and underscoring the importance of translating insights into concrete progress.





Dr. Ruchi Sachan, Asst. Professor, Miranda House, New Delhi

Dr. Ruchi Sachan, then presented the recommendations to all the dignitaries of ICSE 2025. The meetings for finalising the recommendations were held as follows:

- September 17, 2025 | 17:30–18:30 | Venue: Amaltas Hall
- September 18, 2025 | 16:00–17:00 | Venue: Kadamba

Committee Members

Chairperson:
Dr. Erach Bharucha, Director, BVIEER, Pune

Co-Chair:
Prof. R. N. Yadava, Advisor (Research and International Affairs), Mansarovar Global University, Bhopal

Member Secretary:
Dr. Ruchi Sachan, Assistant Professor, Miranda House, University of Delhi

Members:
Dr. P. K. Biswas, Professor Emeritus & Advisor to the Pro-Chancellor's Office, Jagran Lakecity University
Prof. Roopinder Oberoi, Professor, Kirori Mal College, University of Delhi
Dr. Neelima Jerath, Former Director General, Pushpa Gujral Science City, Kapurthala
Dr. Abdhesh Gangwar, Focal Point, RCE Srinagar, J&K
Dr. Raffaella Folli, Professor of Linguistics, Ulster University, UK
Dr. Deepti Rai, Programme Lead, Mobius Foundation
Dr. Suraj K. Tripathy, Associate Dean, School of Chemical Technology, KIIT
Ms. Nidhi Ralhan, Principal Strategist, Forum for the Future, New Delhi
Dr. Divya Agarwal, Assistant Professor, Jesus and Mary College, University of Delhi





Recommendations for ICSE 2025

1. Strengthen sustainability education and awareness
    - Organize school and community-level programs to educate youth about clean energy, waste management, green buildings, sustainable mobility and other sustainable practices. E.g.: As a part of the "Seva Week", IREDA has visited schools to educate children about renewable energy, its impact, and how they can contribute to it.
    - Begin green skill education as part of the school curriculum from Class 10 onwards, in line with the provisions of the National Education Policy (NEP).

2. Promote practical and experiential learning in environment and sustainability
    - Shift from rote learning to hands-on, practical education that includes design-based thinking, immersive problem-solving, and field-based exposures. This will enable students to understand how sustainable systems work, such as solar panels, wind turbines, waste management processes, smart agriculture, etc.
    - Establish prototype labs in schools or provide virtual demonstration of modules/videos to teach students about sustainable development in a cost-effective way.
    - Empower campaign-based learning, focusing on themes like 'Say No to Plastics', 'Eco-Campus', 'Adopt Green Energy', 'Segregate Waste at Source', 'Mission LiFE', etc.
    - Encourage interdisciplinary learning connecting finance, engineering, natural sciences, and social sciences to sustainability outcomes.

3. Green Skill Development
    - Create a structured pathway from school to university for green skill development, ensuring continuity of learning and alignment with emerging green job sectors.
    - Integrate vocational training and internships in green technologies, in collaboration with industry partners, to equip students with practical skills and prepare them for careers in environmental and sustainability-related sectors.
    - Encourage technical institutions and ITIs to offer modular courses and dedicated programs in topics like sustainable finance, ESG frameworks and metrices, solar/wind installation and maintenance, water and energy auditing, circular economy, green business strategy, eco-tourism, agroecology, etc.
    - Promote upskilling, reskilling, and progressive skilling to prepare workers for emerging green job roles.





4. Enhance capacity of teachers and institutions in digital and emerging technologies
    - Equip educators with continuous training in technology-enabled learning, including AI tools, renewable energy systems, and data-driven education.
    - Align teacher training and school infrastructure with technological progress to prevent skill and awareness gaps between educators and students.
    - Prioritise incorporation of sustainability modules into teacher training institutes.
5. Institutional development for green education
    - Encourage bio-designing of green infrastructure and creation of green campuses.
    - Embed sustainability into institutional identity, ensuring that every aspect of campus life reflects ecological stewardship and community relevance.
6. Encourage global competitiveness through green manufacturing
    - Support industries to transition to green production methods (especially in steel, cement, and heavy manufacturing) to meet global import standards demanding low-carbon goods.
    - Facilitate access to green financing and incentives for companies investing in green production.
    - Create incentives for industries that generate employment in the green energy value chain, which will help to achieve the projected 3 million jobs in India's renewable energy sector by 2030.
7. Accelerate renewable energy expansion
    - Facilitate large-scale investments (estimated at ₹30 lakh crore by 2030) to achieve India's target of 500 GW of non-fossil fuel capacity.
    - Prioritize solar, bioenergy, and hydrogen technologies for rapid scaling and innovation.
    - Support industries involved in manufacturing and maintaining renewable energy assets such as wind turbine components, service vessels, and installation systems.
    - Incentivize domestic shipbuilding capabilities tailored for offshore wind projects, creating specialized employment in coastal regions.





8. Adopt a holistic approach to just transition

- Recognize that the shift to a low-carbon economy, while disruptive for certain sectors such as fossil fuels, also generates significant new employment opportunities across multiple value chains. Frame transition policies to ensure both social protection and skill redeployment for affected workers.
- Create diverse training pathways from technicians and skilled trades to engineers and data specialists ensuring wide accessibility across educational backgrounds.
- Develop reskilling programs focused on modern mining technologies, safety standards, and sustainability practices.

9. Develop sustainable solutions for waste management and circular economy

- Strengthen implementation of EPR (Extended Producers Responsibility) across all sectors to ensure that producers remain responsible for post-consumer waste.
- Establish systems for safe dismantling and recycling of end-of-life renewable energy components, including solar panels and wind turbines.
- Promote extraction of critical minerals from e-waste, reducing dependence on virgin mining and advancing resource efficiency.
- Facilitate recyclers' participation in emerging carbon markets and provide incentives linked to carbon savings achieved through recycling and reuse.
- Leverage AI and digital technologies to drive circular economy models, recycling, and reuse solutions.

10. Support nature-based solutions and agro-ecology

- Incentivize nature-positive practices (e.g. agroforestry, organic farming, intercropping, soil carbon improvement) through financial support, technical assistance, and market access.
- Promote agroecology as the foundation for sustainable food production that safeguards soil, water, forests, and biodiversity while feeding growing populations.
- Encourage mangrove and coastal ecosystem restoration as dual engines of climate resilience and employment. Each restored hectare can create seasonal jobs while fortifying natural coastal defences.
- Catalyse eco-tourism and blue carbon ventures that protect biodiversity, unlock carbon finance, and generate inclusive economic opportunities for coastal communities.





- Create local green ambassadors who can champion eco-tourism, cultural heritage preservation, and biodiversity-friendly practices.

11. Encourage green investment and financing models
    - Increase investment in research, development, and skill-building programs for the blue-green workforce.
    - Support green start-ups through concessional financing, risk guarantees, and impact investment mechanisms.
    - Strengthen governance mechanisms for sustainability through improved monitoring and evaluation frameworks, transparency, and accountability.
    - Foster collaborations with institutions like SIDBI and World Bank for MSME upgradation and sustainable transition.

12. Population stabilization and human development
    - Recognize population stabilization as an enabler of sustainable livelihoods and green employment.
    - Encourage policies and community-based initiatives that link quality of life, reproductive health, and sustainability outcomes.
    - Promote female education as the most powerful driver of demographic balance.
    - Encourage men's participation in promoting gender equality and shared responsibility in family planning.
    - Incorporate creative public campaigns that link population issues with planetary well-being.

13. Promote sustainable consumption, lifestyle and behavioural change
    - Mainstream sustainability education in everyday life by encouraging decarbonized lifestyles.
    - Educational campaigns should empower individuals and communities to adopt sustainable consumption, mobility, and energy practices, supporting Mission LiFE.
    - Introduce public programs like Repair & Reuse Camps in urban areas to build practical engagement with circular practices.
    - Governments and institutions should lead by example, mainstreaming eco-friendly procurement to nudge markets toward greener production.





14. Promote gender inclusion in the green economy

- Create pathways and incentives to enhance women's participation in green technologies, circular economy, and other sustainability sectors.
- Ensure equal access to training, certification, and employment opportunities, addressing the gender gap in emerging green industries.

15. Strengthen institutional collaboration

- Foster closer collaboration between ministries, government organisations, educational institutions, industry and civil society to promote integrated and scalable green initiatives.
- Encourage participation of public sector officers and experts in educational and outreach programs to enhance engagement and knowledge-sharing.
- Leverage networks like UNESCO's Global Blue Schools to share best practices, resources, and innovations across regions.
- Encourage South-South cooperation to share technologies, best practices, and innovation for promoting green careers.

16. Position India as a global leader in sustainability

- Leverage India's diverse ecosystems, rich cultural heritage, and rapid economic growth to project the country as a global champion of sustainability.
- By showcasing indigenous knowledge, technological innovation, and community-driven practices, India can lead the transition toward a more resilient and inclusive green economy.





Cultural Evening

The first day of the conference ended on a lively note with a cultural performance by the students of Gyan Anant Vidyalaya, a Mobius Foundation school that proudly holds the status of a green campus. Their piece, themed "Lordship," blended strong expression with coordinated movement, creating an atmosphere that pulled the audience in right from the start. The dancers carried the stage with confidence and high energy, and the hall quickly filled with claps and cheers as people joined in the moment. It was a warm, spirited finish to the day, leaving everyone in the auditorium buzzing with excitement.

Exhibition

1. Mobius Foundation

The Mobius Foundation highlighted its wide-ranging sustainability work, including International Conference on Sustainability Education (ICSE), its flagship annual global conference on sustainability education. The stall featured key initiatives such as of the foundation such as Project Aakar on population stabilization, the MYCL for Himalayan Development programme, the Household Biogas Programme, and the Gyan Kanya Shakti school initiative among others.

The Mobius Foundation Exhibition Stall

2. SUNDESH

SUNDESH Exhibition Stall

Social Development Society (SUNDESH) is a manifestation of Dr. SK Burman's visionary pursuit to uplift and empower the weaker and vulnerable segments of Indian society. SUNDESH stall has showcased women-led rural entrepreneurship through a colourful display of SHG-made products from Hapur and Gautam Buddha Nagar. The stall featured organic jaggery, canvas bags, seed kits, vermicompost, festive thalis, and homemade snacks, highlighting skills developed at the Nari Shakti Kendra. It offered SHGs valuable market exposure and underlined SUNDESH's mission of empowering marginalized communities through sustainable livelihoods.

3. Population Foundation of India (PFI)

Population Foundation of India's stall showcased its work on the Aakar Project supported by Mobius Foundation, across seven districts of Uttar Pradesh to strengthen family planning services. It featured counselling tools, method-specific job aids, and outreach material from the "Itni Bhi Kya Jaldi Hai" campaign. A mock mobile counselling van drew strong interest with its videos and jingles. Visitors engaged deeply with PFI's Umeed Counselling Corners and community-led approaches, making the stall a lively hub for learning about reproductive health and climate-linked population issues.

Population Foundation of India (PFI) Exhibition Stall

4. Janani

Janani implementing the Mobius Foundation's Project Aakar to increase community awareness and acceptance of family planning, enabling the adoption of measures such as sterilization, contraception, and delayed marriage in Siddharth Nagar district of Uttar Pradesh and Saran district of Bihar. The exhibition stall focused on family planning, offering visitors guidance through an on-site counsellor. The display featured a range of contraceptive products, along with free condom distribution to raise awareness and encourage safe practices. Their presence at ICSE 2025 supported the event's broader goal of promoting informed choices and community well-being through accessible education.

Janani Exhibition Stall

5. The Climate Reality Project Foundation

The Climate Reality Project Foundation Exhibition Stall

The Climate Reality India & South Asia hosted an engaging stall showcasing their Climate Change Education programs, including the Green Campus initiative, teacher trainings, and youth-led campaigns like Youth for COP and Youth for Earth. An interactive Climate Warrior Quiz added energy, rewarding high scorers with badges. The stall sparked strong interest among educators and students, encouraging deeper participation in climate action and sustainability learning.

6. Centre for Environment Education (CEE)

The exhibition featured a demonstration of canvas paintings created by students of Bharat Mata School, highlighting themes of environmental sustainability and education. Engaging hands-on activities were conducted to promote carbon footprint reduction and sustainable plastic waste management methods. Additionally, the stall showcased the impact of the Badlaav campaign, an initiative by CEE to adopt a low carbon future, across various different locations in India.

Centre for Environment Education (CEE) Exhibition Stall

7. Noble Citizen Foundation

Nobel Citizen Foundation showcased its youth-focused sustainability initiatives, emphasizing holistic learning and environmental action. The stall displayed before-and-after visuals of afforestation and wasteland rejuvenation projects, along with programmes like Adopt a Tree and the CSR–NGO Impact Alliance. Visitors gained a clear view of how the foundation empowers young people to lead meaningful ecological change through hands-on, community-driven efforts.

Noble Citizen Foundation Exhibition Stall

8. TERRE Policy Centre


TERRE Policy Centre Exhibition Stall

TERRE Policy Centre's stall reflected its strong commitment to environmental sustainability and education. It featured interactive displays, learning tools, and materials on key themes such as afforestation, conservation, renewable energy, watershed development, mangrove restoration, and community empowerment. The stall helped visitors explore practical, science-based solutions while showcasing TERRE's work in environmental literacy, policy advocacy, and climate-focused community development.

9. International Union for Conservation of Nature (IUCN)

IUCN presented its collaborative work with youth in the Himalayas and the Barak–Meghna basin, emphasizing community engagement in conservation. The stall also introduced visitors to IUCN's key tools, global standards, and ongoing environmental initiatives. Through these showcases, IUCN highlighted the value of youth-led action and science-based approaches in driving effective ecosystem protection and sustainable development.


International Union for Conservation of Nature (IUCN) Exhibition Stall

10. M.L. Khanna DAV Public School

M. L. Khanna DAV Public School showcased Sanjeevani – Embracing Life, a student-led enterprise promoting eco-friendly products and sustainable living. The stall highlighted green alternatives crafted by students, blending environmental awareness with hands-on entrepreneurship. Through their display, students encouraged peers and visitors to adopt responsible habits, demonstrating how youth-led innovation can support sustainability and contribute to greener futures.

M.L. Khanna DAV Public School
Exhibition Stall

11. Aayogh Engineering Pvt. Ltd.

Aayogh Engineering Pvt. Ltd.
Exhibition Stall

Aayogh Engineering Pvt. Ltd. showcased their advanced smart materials designed for higher thermal conductivity, developed with their industry partner and approved by the Ministry of Mines for a pilot plant. The technology aims to cut industrial heat loss and support carbon credit goals. Their stall also highlighted the company's multidisciplinary expertise, patented innovations, and ongoing work in advanced composites and scientific engineering solutions geared toward modern sustainability challenges.

12. Dr. Samrat Ghosh, IISER Mohali

Dr. Samrat Ghosh from IISER Mohali presented his frugal educational innovations, including the Amrut Kranti Chakra, a non-digital, hands-on learning tool designed to spark curiosity in students. His stall demonstrated how simple, low-cost models can make science engaging and accessible. Visitors appreciated the practicality and creativity of his work, which aligns strongly with sustainable, inclusive approaches to education.

Dr. Samrat Ghosh, IISER Mohali
Exhibition Stall

13. A4Con Services Pvt. Ltd. (A4Conserve)

A4Con Services Pvt. Ltd. presented their work as a sustainability-focused advisory firm with deep expertise in education, health, and environmental PPP projects. Their stall highlighted their mission to make quality learning accessible and affordable through technology-driven solutions. With a team of seasoned professionals and a strong focus on circular economy practices, A4Con showcased how they help organisations design sustainable, future-ready strategies.

Conserve Exhibition Stall

14. Global Youth Peace Committee (GYPC)

Global Youth Peace Committee (GYPC) Exhibition Stall

GYPC showcased its Project Vasudha stall, featuring handmade eco-friendly products such as soaps, candles, cloth bags, pickles, papad, and traditional crafts created by community groups. The stall highlighted women-led livelihoods and cultural preservation while engaging visitors in conversations on youth empowerment, peacebuilding, and sustainable development. It attracted strong interest from educators, policymakers, and international delegates, opening doors for a sustainable future.

15. Tavasyam

Tavasyam presented its range of eco-friendly tea leaves and allied products, highlighting sustainable everyday practices. Their stall offered visitors a simple, relatable entry point into greener consumption. Participation at ICSE 2025 helped them connect with educators and innovators, explore collaborative ideas, and expand visibility for their mission of promoting environmentally responsible lifestyles.

Tavasyam Exhibition Stall

ICSE 2025: A Carbon Neutral Conference

The 7th International Conference on Sustainability Education (ICSE 2025) was conducted as a Carbon Neutral Conference in alignment with the principles and requirements of ISO 14068-1:2023 (Carbon neutrality – General principles and requirements). In accordance with global best practices, the conference's greenhouse gas (GHG) emissions were comprehensively quantified using ISO 14064-1 methodologies, covering Scope 1, Scope 2, and Scope 3 emissions. The total emissions for the two-day event were estimated at 139 tCO_2e, comprising 2 tCO_2e from Scope 1 and 2 and 137 tCO_2e from Scope 3 sources. Emission reduction measures were prioritized, and residual emissions were fully neutralized through the purchase and retirement of certified carbon credits facilitated by HLS SJM Pvt. Ltd. This approach ensured that ICSE 2025 met internationally recognized carbon-neutrality benchmarks and underscored the Mobius Foundation's commitment to responsible, climate-conscious, and sustainability-led event management.

Date: 13 NOVEMBER 2025
REFERENCE: VC39407/2025

United Nations
Framework Convention on
Climate Change

VOLUNTARY CANCELLATION CERTIFICATE

Presented to
Mobius Foundation

Project
4.5 MW wind power project of PCI Limited at Gujarat, India

Reason for cancellation
These credits are being used to make ICSE -2025 held at India Habitat Center by Mobius Foundation a Carbon Neutral event

Number of units cancelled

139 CERs

Equivalent to 139 tonne(s) of CO_2

Start serial number: IN-5-301681675-1-1-0-4920
End serial number: IN-5-301681813-1-1-0-4920

Monitoring period: 20-09-2011 - 31-12-2012

The certificate is issued in accordance with the procedure for voluntary cancellation in the CDM Registry. The reason included in this certificate is provided by the cancellor.

Editorial Coverage

दैनिक जागरण

सतत विकास के लिए सामूहिक प्रयास जरूरी : भूपेंद्र यादव

ETV BHARAT

Environment Minister Pitches For Integration Of Sustainability Into School Curriculum

Bhupender Yadav said India is taking tremendous strides to shift from fossil fuel dependence to renewable energy sources.

Shabdwani NEWS

NBM&CW

Bhupendra Yadav Stresses Green Skills, Inclusivity at ICSE 2025

APN NEWS

Union Minister Bhupendra Yadav Applauds Mobius Foundation's Efforts in Sustainability Education for Green Jobs and Climate Leadership at 7th ICSE

केंद्रीय मंत्री भूपेंद्र यादव ने रचे आईसीएसई में मोबियस फाउंडेशन के प्रयासों की किया सराहना

The Pioneer

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Sustainability education for green jobs

THE HINDU

THE HINDU

News from the world of Education: September 25, 2025

Information on admissions, scholarships, new courses, research studies and other events at schools and colleges

Published - September 25, 2025 03:28 pm IST

The seventh International Conference on Sustainability Education (ICSE) on the theme *Sustainability Education for Green* looked at how STEM education, vocational training, entrepreneurship, and lifelong learning could be reoriented to meet the demands of sustainability-driven job markets. Benno Boer, Chief, UNESCO South-Asia, was the guest of honour. Other dignitaries included Kartikeya Sarabhai, Founder Director, Centre for Environment Education and Amit Verma, Director, Green Transition, Environment and Climate Change, NITI Aayog.

shiksha

STEM Education, skills essential for developing Green Tech

india education diary

millenniumpost

ICSE 2025 charts path for green economy jobs

BW BUSINESSWORLD

India Faces Urgent Green Skills Gap In Net Zero Push

The CSR Universe

7th ICSE Conference Calls for Bridging Skills Gap to Build Green Economy

EDUCATION21.

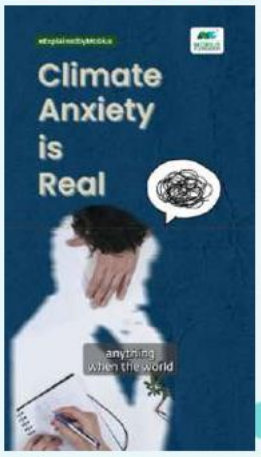
7th ICSE conference gives a call for Bridging Skills Gap for a Green Economy

Social Media Campaign

Platform	Impressions	Engagements
Instagram	6,40,759	42,192
X	6,375	372
Facebook	5,89,367	1,80,022
LinkedIn	59,972	14.34%

Views of ICSE Concept Videos

1.2 million Views



https://www.instagram.com/reel/DLCs5QNSxDr

464 K Views

https://www.instagram.com/reel/DLXP785OGPc

69.7 K Views

https://www.instagram.com/reel/DMMwwlBux8k

Event Placement

Authored Articles

THE WEEK

Teaching For Tomorrow: Rethinking Education for a Sustainable Future
- Mr. Kartikeya Sarabhai

From local wisdom to global solutions: The role of climate change education in a changing world

Climate change education (CCE) is crucial for transitioning from awareness to understanding and action, fostering student innovators and integrating traditional knowledge

By Kartikeya Sarabhai | Updated: September 23, 2023 21:09 IST

Children from pre-primary during their first day of school in Mumbai on June 5, 2023 | PTI

As climate change increasingly becomes a part of people's reality, whether it is experiencing floods, droughts, unseasonal rains, or record temperatures, it is important that people understand these phenomena and what they can do about them.

Climate change education (CCE) is shifting from awareness to understanding to action. Climate change education needs to be integrated within a broader understanding of the environment and sustainability. Climate change is not an isolated issue, it is inextricably linked to other planetary crises, especially pollution, biodiversity loss, and people's lifestyles. Students must fully grasp the interconnectedness of the micro and macro ecological systems.

Traditionally, cultures evolved ways in which they lived in harmony with their environment, and there are many lessons from traditional practices. Integrating learnings from the traditional knowledge systems into the curriculum can be effectively used in schools. This also allows developing a pedagogy that links the school to the community.

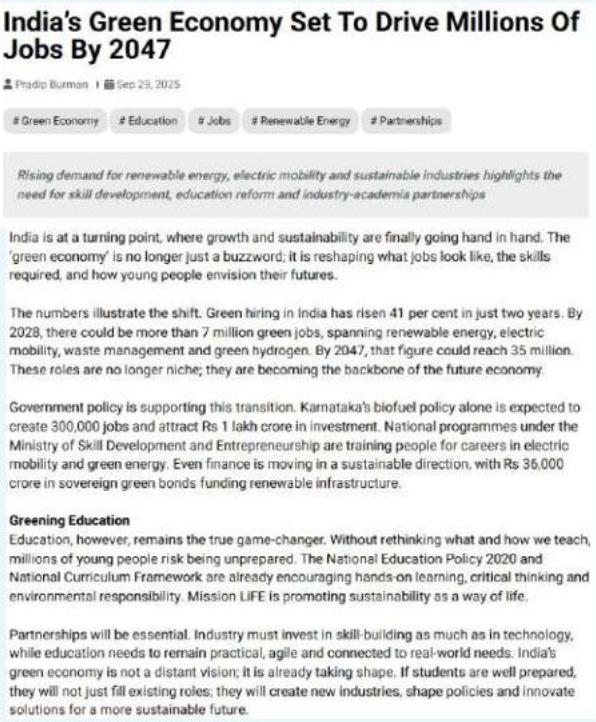
The world is also rapidly seeing a rise in innovative solutions to mitigate the impacts of climate change. There is an increased opportunity for children themselves to become innovators, with their creativity and fresh perspectives, young people can design modern solutions in building a more resilient environment.

Before addressing the quality of climate education, there is a stark reality that needs to be addressed. Over 250 million children are still out of school worldwide. This is especially true in regions facing political, climatic, or social barriers. In South Asia alone, millions of children are not able to continue and finish their education.

From local wisdom to global solutions: The role of climate change education in a changing world- The Week

BW EDUCATION
www.bweducation.com

India's Green Economy Set To Drive Millions Of Jobs By 2047
– Mr. Pradip Burman



India's Green Economy Set To Drive Millions Of Jobs By 2047

Pradip Burman | Sep 29, 2025

Green Economy # Education # Jobs # Renewable Energy # Partnerships

Rising demand for renewable energy, electric mobility and sustainable industries highlights the need for skill development, education reform and industry-academia partnerships

India is at a turning point, where growth and sustainability are finally going hand in hand. The 'green economy' is no longer just a buzzword; it is reshaping what jobs look like, the skills required, and how young people envision their futures.

The numbers illustrate the shift. Green hiring in India has risen 41 per cent in just two years. By 2028, there could be more than 7 million green jobs, spanning renewable energy, electric mobility, waste management and green hydrogen. By 2047, that figure could reach 35 million. These roles are no longer niche; they are becoming the backbone of the future economy.

Government policy is supporting this transition. Karnataka's biofuel policy alone is expected to create 300,000 jobs and attract Rs 1 lakh crore in investment. National programmes under the Ministry of Skill Development and Entrepreneurship are training people for careers in electric mobility and green energy. Even finance is moving in a sustainable direction, with Rs 36,000 crore in sovereign green bonds funding renewable infrastructure.

Greening Education

Education, however, remains the true game-changer. Without rethinking what and how we teach, millions of young people risk being unprepared. The National Education Policy 2020 and National Curriculum Framework are already encouraging hands-on learning, critical thinking and environmental responsibility. Mission LiFE is promoting sustainability as a way of life.

Partnerships will be essential. Industry must invest in skill-building as much as in technology, while education needs to remain practical, agile and connected to real-world needs. India's green economy is not a distant vision; it is already taking shape. If students are well prepared, they will not just fill existing roles; they will create new industries, shape policies and innovate solutions for a more sustainable future.

https://www.bweducation.com/article/india-s-green-economy-set-to-drive-millions-of-jobs-by-2047-573565

About Mobius Foundation

Established in 2015, the Mobius Foundation is a non-profit organization dedicated to advancing environmental sustainability. With a primary goal of raising awareness about the environment and sustainability, the foundation has been at the forefront of numerous initiatives across India. Among its flagship projects is the annual International Conference on Sustainability Education (ICSE), initiated in 2019, which brings together global leaders, educators, and policymakers to address sustainability issues through educational avenues.

The foundation's Project Aakar focuses on promoting population stabilization across districts in Uttar Pradesh and Bihar, targeting approximately 8,500 villages. Mobius Young Climate Leaders (MYCL) for Himalayan Development programme, a ground-breaking initiative aimed at addressing the pressing need for sustainability education among youths of North-East India. The Mobius Household Biogas Programme will install 5,000 household biogas plants in Rajasthan, Madhya Pradesh and Maharashtra to implement a transformative, decentralized solution that converts cattle waste into clean biogas and organic fertilizers. Additionally, the Gyan Kanya Shakti: 100 School Program strives to adopt and run girls' schools in rural Uttar Pradesh and Madhya Pradesh, aiming to empower underprivileged girls through the provision of quality education. Through its Think Tank, the organization engages in diverse programs and research areas such as renewables, agriculture, environment, forest and wildlife, and climate change, seeking to integrate "Environmentality" with sustainability in human actions.

Constantly in pursuit of opportunities, Mobius Foundation remains dynamic and proactive in contributing to the global effort in building a greener future.

MOBIUS FOUNDATION

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