

Greening Education Partnership – Roadmap for Integrating Climate Change Education and Learning from India and outside

The session aimed to share and review national initiatives integrating climate change into the curriculum and teacher education, explore global and Indian case studies on climate-resilient and green schools, and highlight the role of youth in developing green skills, leading climate actions, and driving the transition to a green economy. Structured as a moderated panel discussion followed by an open-house dialogue, the session provided a platform for sharing experiences, reviewing progress, and exploring innovative strategies to advance climate change education and sustainability in India and beyond.



Speakers

Panel 1: Greening Curriculum and Teacher Education

- Prof Chong Shimray, NCERT
- Dr Abhay Kumar, CIET, NCERT
- Prof Kiichi Oyasu, Asia-Pacific Cultural Centre for UNESCO, Tokyo; Director of the Education Cooperation Department at the Asia-Pacific Cultural Centre for UNESCO (ACCU)

Panel 2: Greening Schools and Communities

- Dr Pramod Kumar Sharma, FEE
- Shri Lalit Nayaran Singh Sandu, IAS, SPD, Samagra Shiksha Abhiyan, Gandhinagar
- Dr Pratibha Singh, UNICEF New Delhi
- Ms Viveka Jani, ClimACT Initiative

Presentations and Key Messages



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Ms Joyce Poan (UNESCO) in the session offered a significant opportunity for UNESCO to strengthen its collaboration with CEE, building upon their previous joint effort, "Seeds of Change: 2023 India State of Education Report of India on Education to Address Climate Change." This ongoing partnership aligns with the objectives of the Greening Education Partnership (GEP), launched in September 2022 at the Transforming Education Summit, for which UNESCO serves as the Secretariat. The GEP aims to foster coordinated action in equipping learners with the necessary knowledge and skills for addressing climate change and promoting sustainable development, focusing on its four pillars: Greening Schools, Greening Curriculum, Greening Teacher Training, and Greening Communities. In 2024, UNESCO released two key guideline documents to advance these goals: the "Green Schools Quality Standard," a global benchmark targeting 50% of schools to be "greened" by 2030, and the "Greening Curriculum Guidance," which outlines the integration of climate change across education levels, aiming for 90% of curricula to be "greened" by 2030. As a pilot country, India, through the collaborative efforts of the UNESCO office and CEE, conducted national consultations with education experts and stakeholders to ensure the inclusion of South Asia's and specifically India's perspectives in these global documents. The findings from teacher surveys and school assessments were shared with the UNESCO Secretariat, culminating in the launch of the final documents on World Environment Day, June 5, 2024.

Professor Chong Shimray (NCERT) in her talk said that NCF 2023, which is based on NEP 2020, has more ambitious plans for climate change education. Several competencies are there within the NCF 2023 that address climate change, which enables us to be more careful in integrating these concepts systematically throughout grades. Not just climate change education, but environmental education should be integrated; caring and learning for the environment will be included in all stages of education. Environment Education will also be a separate subject in Grade 10.

The key challenges in writing new textbooks that include comprehensive climate change education are systematic integration of climate change concepts across grades and subjects. Ensuring a holistic understanding of climate change, rather than just learning about it in a piecemeal fashion, is crucial for achieving coherence across the curriculum. Addressing gaps in prior knowledge is important to ensure that students' foundational information is thorough. Textbook writers need to strike a balance between covering the breadth of climate change topics and providing sufficient depth on key concepts.

Dr Abhay Kumar (NCERT) said that the honourable Supreme Court of India had given directives to make environmental education a compulsory subject at all levels of education in India. NCERT was made the nodal agency for implementing this Supreme Court order. NCERT stated that rather than introducing a separate subject on the environment, they will integrate environmental concerns across the curriculum. This is why existing textbooks do not have a separate environmental science or studies subject.

However, a shift in approach is evident with the NEP 2020 and NCF 2023. Within the NEP 2020, there is a recommendation for separate textbooks on Environmental Education at the school level. NCERT, in collaboration with partners such as CEE and UNICEF, is developing a teacher training module focused on climate change education. This module encompasses topics including climate change, its impacts, mitigation, and adaptation, with the overarching goal of integrating climate change across all subjects in schools. The aim is to train teachers of all subjects, not exclusively science and social science teachers. This module is currently being piloted nationwide, and feedback is being collected

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on various aspects, with recommendations including the addition of more visuals and local examples to strengthen climate change concepts.

Dr Kiichi Oyasu (ACCU) shared the three core domains of the framework: integrated climate criteria, active and creative teaching, and holistic assessment of learning. He outlined that content delivery should incorporate active learning strategies such as PBL (Project/Program Based Learning), and holistic assessment should extend beyond test-based learning to include social impact, various certifications, and lifelong learning perspectives. Recommendations for institutional development through regional project development can be achieved by developing practices within communities and sharing resources that transcend disciplines and move beyond silos, as well as by extending the practices of individual institutions to create additional synergies through opening participation of organizations. There is a need for institutional development through communities of practice and the use of open online courses on teacher education, which is being developed by the ATECCE Network led by Okayama University, and of which CEE is also a part, where they are developing a comprehensive 23-hour module spread across 15 weeks.

Shri Lalit Narayan Singh Sandu, IAS, SPD, SSA, Gujarat, discussed the Saksham Shala Initiative in Gujarat, which aims to make schools more climate resilient. He highlighted that the Saksham Shala initiative focuses on making schools clean, green, safe, and inclusive, defining over 100 specific criteria across these four components to achieve disaster-resilient school infrastructure and integrate it into the teaching-learning process. The initiative involves a comprehensive assessment and ranking of schools based on these criteria, utilizing a scoring system. Given that Gujarat has around 54,000 schools and over 11 million students, the scale of this initiative is very large, presenting a significant opportunity to instil environmental values in a large number of first-time learners. Some key challenges include the sheer scale of implementation, capacity building for over 3 lakh teachers, and ensuring community involvement. The Gujarat government has provided resources and support, including from UNICEF, to develop detailed guidelines for Saksham Shala schools. The focus is on making all new infrastructure environmentally responsible and accessible, extending beyond typical "green" elements. So far, over 600 master trainers have been trained through this initiative with the support of CEE.

Dr Pratibha Singh (UNICEF) discussed the efforts of UNICEF and various state governments in promoting climate-resilient schools in India. She noted that UNICEF's focus has recently shifted more towards climate change and disaster resilience, in addition to its core areas like child health, nutrition, and water/sanitation. At the national level, the Ministry of Education has taken proactive steps such as integrating climate change and environmental education into the curriculum through initiatives, with financial outlay provided to all states to ensure that 1.5 million schools set up eco clubs and youth clubs. Mission Meri LiFE has 75 actions that every individual can take, including saving water, eating local, and saving energy. Several state governments have launched their own programs and awards for climate-resilient and environmentally sustainable schools: Bihar has a "Safe School" program incorporating disaster risk reduction; Odisha is working towards model climate-smart schools, particularly in vulnerable coastal areas; Chhattisgarh is focused on preserving indigenous knowledge and culture alongside environmental education; and Uttar Pradesh has the "Kayakalp" programme to transform schools into well-functioning, sustainable institutions. UNICEF has collaborated with these state initiatives, offering technical support and demonstrating models of zero-waste campuses, rainwater harvesting, and other solutions.

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Dr Pramod Kumar Sharma (FEE) discussed the Green School Quality Standard developed by the Greening Education Partnership and its other three pillars: Green Curriculum, Greening Teacher Training, and Greening Communities. He emphasised the target of 50% of schools achieving the standard by 2030. He also mentioned the challenges of achieving this target, including the need for financial support, resources, and capacity building of teachers through teacher's training and a whole-school approach. Dr Sharma highlighted the gender gap in taking climate action where girls take 30% more initiative and climate action than boys.

Ms Viveka Jani (ClimAct Initiative) representing the youth in the panel, discussed empowering and meaningfully engaging young people in climate action. She stated that young people are "already catalysts of change, not just leaders of tomorrow," stressing that their voices and ideas require support. Her organisation runs a Climate Leadership Programme that focuses on non-formal education and skill development for youth, providing training not only on technical climate change topics but also on crucial soft skills such as communication, campaign building, and leadership. Effective communication is a key focus, aiming to help young people articulate the climate crisis in a way that resonates and motivates others to act. The program also emphasizes giving young people the confidence and platforms to implement their own climate action projects and ideas. A crucial aspect highlighted was co-creating the program curriculum with young people themselves to ensure its relevance and empowering nature. She emphasised the need for organisations to take young people seriously and provide them genuine opportunities to lead and drive climate action.

Ms Joyce Poan (UNESCO) in her closing remarks, highlighted the emphasis on the need for teachers, stakeholders, and everyone involved to inspire confidence and effective communication about climate action. She emphasised the importance of four 'C's that emerged from the conference's discussions involving all stakeholders, government officials, intergovernmental organisations, and civil society: confidence, communication, collaboration, and finally, contextualization in addressing climate change. She stressed the need to adapt and contextualise global guidelines such as UNESCO GEP to relevant local priorities for effective implementation.

Session Highlights

The session concluded with a launch of the Climate and Environmental Education E-learning Course developed by CEE titled, "Learn Climate Science and Lead Climate Action". This course is meant to build the understanding of climate science, bridge the gap in climate change education and enhance practical knowledge.

Quotes with attribution

"Effective climate action requires inspiring confidence and clear communication from teachers and all stakeholders."- Ms. Joyce Poan, Chief of Education, UNESCO New Delhi

"There exists an opportunity because India is developing. There are a lot of students who are first time learners. If we could signal them the right value system, there exists the opportunity to rightly educate them with reference to the environment. Just seeing the lifestyle of a person could serve as a proxy indicator of whether he is environmentally educated or not."- Shri Lalit Nayaran Singh Sandu, IAS, SPD, Samagra Shiksha Abhiyan, Gandhinagar, Gujarat

"NCF 2023 is really focused on integrating climate change very seriously, because of the seriousness of the issue seen today." - Dr Chong Shimray, Professor, DESM, NCERT

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"If a school has to be good, a teacher has to be better. Teachers are more important than infrastructure" – Dr Abhay Kumar, CIET, NCERT

"Greening Schools is a process not a checklist, to achieve the GEP Green School Quality Standard". -Dr Pramod Kumar Sharma, FEE

"Competencies developed during the school age should be the foundation for life, so that people can become a self-directed voice." - Dr Kiichi Oyasu, Director of Education and Cooperation Department, ACCU

Key Remarks from the participants

Dr Jim Taylor posed the following questions to the panellists:

- With the three perspectives coming from the global south, to what extent are we dealing with active learning as we have heard about curriculum infused dialogue and curriculum aligned creating. From Global North or from the Green Movement?
- To what extent are we applying disruptive research in the just transition, as we have talked if we were not conscious of disruptive research, could we perpetuate, unwittingly, the status quo?
- How do we seriously engage in decolonial research when so much of the momentum in the curriculum movement has an unwitting, unintentional colonial power behind it, and people just seem to pick up on it and go along with business as usual, again, how do we deal with that?

Key Recommendations from the Session

- Systematic integration of climate change education (CCE) across curriculum: To holistically integrate climate change education across all grades and subjects, keeping in mind to have the right balance between the breadth of concepts required and the depth of understanding required.
- Teacher training and capacity building: To develop and scale up teacher training modules on climate change education to empower teachers to transact this learning in schools. Incorporating active learning strategies like Project-Based Learning (PBL) will also be a valuable tool in delivering impactful lessons on climate change.
- *Holistic and inclusive assessment:* To move beyond test-based assessments to include social impact evaluations, certifications, and lifelong learning perspectives.
- Institutional development and community engagement: To promote regional and institutional collaboration to develop and share best practices for climate-resilient schools. In addition, to encourage community involvement in school initiatives, ensuring that climate action extends beyond the school.
- *Climate resilient and sustainable schools:* To focus on infrastructure development that is environmentally responsible and accessible, going beyond traditional "green" elements.
- National and state-level policy support: To align with NEP 2020 and NCF 2023 to integrate climate change and environmental education into the national curriculum. This will also involve providing financial and technical support to states for implementing climate-resilient school programs. Scaling up initiatives like Mission Meri Life and eco-clubs to engage students in practical climate actions will also be impactful in creating environmentally conscious citizens.

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- Youth empowerment and leadership: To recognise young people as catalysts of change and provide platforms for their meaningful engagement in climate action. To also build environmentally educated children by inculcating the right values and ethics at an early stage in their learning.
- *Global and national collaboration:* To align with global frameworks like the Greening Education Partnership (GEP) and aim for targets such as 50% of schools achieving green school standards by 2030. In addition to this, to promote cross-disciplinary and cross-institutional synergies to amplify the impact of climate education initiatives.
- Focus on equity and inclusion: To ensure that climate education and action initiatives are inclusive and accessible to all students, regardless of gender, socio-economic status, or geographic location.

Who Acts?

- Government Authorities
 - o Central and State education ministries and departments
 - Local education authorities and school management committees
- Educational Institutions, School Leadership and teachers
 - o School principals and headmasters
 - Teachers and faculty
- Youth
 - School-going children and youth
 - Youth-led climate action group
- Parents and Local Communities
 - Parents and guardians of students
 - Local community members

Referred Case Studies

Examples of climate-resilient school initiatives from different states in India:

- Bihar: The state government has initiated a "Safe School" programme that incorporates disaster risk reduction.
- Odisha: As a coastal state vulnerable to climate change impacts, Odisha is working towards developing model climate-smart schools.
- Chhattisgarh: The state government has focused on preserving indigenous knowledge and culture along with environmental education.
- Uttar Pradesh: The state has launched the "Kayakalp" programme to transform schools into well-functioning, sustainable institutions. This programme aims to provide better facilities by keeping all government buildings maintained.
- Gujarat: The "Saksham Shala" (Capable School) initiative has developed comprehensive guidelines with 100 indicators across green, safe, inclusive and disaster-resilient components. The state has provided resources and support, including from UNICEF, to implement this programme at scale.