



Summary of the Charting an SDG 4.7 roadmap for radical, transformative change in the midst of climate breakdown. #vCIES2020.

With support from ESE SIG, Radhika Iyengar and Christina Kwauk organized their #vCIES [workshop](#) titled “Charting an SDG 4.7 roadmap for radical, transformative change in the midst of climate breakdown”. More than 20 panelists participated in this 4-hour long workshop with Jeffrey Sachs as the keynote speaker. The workshop was organized on Christina's Brookings report. Christina Kwauk presented the Brookings Institution [Report](#) on the roadblocks linking education and climate change. The panelists included a wide range of backgrounds including, philosophers of education, environmental education experts, environmentalists, lifestyle sustainability experts, community mobilizers, youth, school teachers, spiritual gurus, and others. This workshop aimed to take the Sustainable Development Goals Framework and draw linkages between education and the environment. More than 800 people participated and joined the various panelists. What did we learn from the workshop?

Professor Jeffrey Sachs stated that "it is a moral obligation to have every child in school" we have 260 million children out-of-school. He noted that there is urgency on financing for quality education. Basic competency in literacy and numeracy is still lagging. Sachs said that "learning about the real world around us" is key to quality education that children received. SDG4.7 calls for the idea of teaching sustainable development, the idea that "we are connected systems of systems. We are interconnected cultures and interconnected nations. We are human beings interconnected with our physical earth systems". Sachs noted that our curriculum does not prepare students for that, and we need to have an urgent call to action from all educators to use the opportunity of SDG4.7. to work on a sustainability curriculum.

The workshop's message on the entry points to systems transformation needed for radical climate action by education systems is the following- [Bob Jickling](#), Professor Emeritus, Lakehead University, highlights that education is struggling to disrupt the status quo in any meaningful way. Collectively we are not finding a way to stop climate change. He urges us to problematize control and to check our assumptions to bring about a radical change in education that speaks to the climate breakdown. [Heila Lotz-Sisitka](#) noted that there is a lack of radicalized vision in education. Heila indicated that if we need to transform education, we need to start looking at the heart of education, which is learning. [Nidhi Thakur](#), an economist, mentioned that education has a good rate of return as the message goes to the family and the community and there are many positive externalities associated with it, therefore education is

clearly a high entry point for climate messaging. We need to create incentives, and the concept of externalities need to be internalized through education. [Jeffrey Schlegelmilch](#), a disaster risk mitigation specialist observes that humanmade and natural disasters get imprinted on children's minds. Jeffrey notes that “we must recognize that we work on a broader ecosystem” and that education must be taught holistically. We have not done enough on the business and the incentive side to drive that change on the disaster risk reduction side. Communities need to be a part of education and not just the child alone.

The key messages on the reorienting monitoring & accountability mechanisms and the incentive structures of our current education systems are the following- Priyadarshani Joshi of the GEM Report noted that there had been a normative framework that is led by UNESCO since 1974 that looks to the education systems of countries to see if they imbibe the principles of human rights and fundamental rights. UNESCO also reviews national curricular frameworks. UNESCO has argued that relevant learning needs to happen at schools and throughout life. Jess Cooke, Plan International notes that climate policymakers are not yet prioritizing education, nor is girls’ education on their radar. Governments should be made accountable. Adriana Valenzuela of UNFCCC notes that we have a robust international framework on climate change education. Article 6 of the Convention, Article 12 of the Paris Agreement, requires to focus on the six key elements- education, training, public awareness, public access to information, public participation, and international cooperation. Frank Neopold of NOAA highlights that the ACE curriculum can be scaled in the States, counties very successfully. Looking at the educational and public infrastructure on bridging and making connections is vital to implement the curriculum changes. National goals become very aspirational, so making the local connections are critical.

The workshop also aimed to share the successes and challenges of think tanks and NGOs which integrate education and climate. [Caroline Lewis](#), Founder, and Senior Climate Advisor, CLEO Institute, shared that politics and leadership change bring significant challenges. Lewis continued, "We must stop the all or nothing approach of education." She narrated that education should include engagement and that we need many climate communicators and storytellers. [Kartikeya Sarabhai](#), Centre for Environment Education, India, suggests that their movement started at the environmental ministry and worked with the education system through the nonformal and informal medium. The neighborhood level is fundamental. Global networking is vital to know more about the exciting work that is happening across the world. As a voice from Zimbabwe, Ellen Chigwanda, Advocacy Advisor for Education, CARE USA, described how climate change was presenting itself as a significant challenge in the region. Ellen saw many linkages between access to school and climate change in Zimbabwe. She pointed out that drought was the main reason why children were out-of-school. Therefore, she conducted a multi-disciplinary drought assessment that brought a range of stakeholders to the table. This action brought about climate change actors into the education sphere. Anna Bertmar Khan, Deputy Director of Programs, Dubai Cares, notes that we need to listen to our children to work on a curriculum that speaks to their day-to-day issues. She gave the example of children in Sindh, Pakistan, who lived in an arid region and felt the wrath of climate change (lack of water to drink, no food to eat due to a drought) daily.

What support do teachers require to take the leap radical, transformative teaching and learning for climate action? William Bertolotti, a science teacher from Plainedge High School, New York, notes that children embody our hope and collective investment for the future. The restlessness of the youth is the fuel for future change. Connecting science education to resilience and personal learning growth will help students to connect to their immediate environments. Through her work, Abby Ruskey, Fellow in Complex Systems Management at UC-Merced, focuses on the role of community members and urges the students to be out in the communities to learn from their environments. Elisa Hartwig, Antigua Green School, Guatemala, talks about the professional development of teachers and the need of the students using the lens of an interdisciplinary climate change curriculum that includes both environmental as well as social aspects. She explains that asking the students what they need to learn and co-creating the learning environment is key to climate change action.

On local action at the township level: Evidence of what has worked and some roadblocks to building community leaders/action at the grassroots began with Lagipoiva Cherelle Jackson, Editor, Pacific Environment Weekly, Samoa. Citizens in Samoa are at the frontlines of climate change with cyclones, flooding, and landslides, with the incidences growing exponentially. There was a gap in people's understanding of how climate change impacts economies and lifestyles. Our cultures are based on the climate, yet climate change is not a part of the curriculum in Samoa. Climate change messages reaches the communities through local chiefs who are forming organizations and outreach mechanisms to introduce this topic through various entry points. Much more needs to be done in this regard. Generic curriculum climate change topics like pollution in cities are not relevant to most people in Samoa; therefore, climate change topics that you see in everyday lives is essential. Priya Patel, Chair Millburn School Green Team, and Member Millburn Environmental Commission notes that environmental injustices are a part of everyone's lives in New Jersey. Yet, the curriculum does not include anything on the justice aspect. Therefore treating climate change holistically in curriculums are critical to a better and more just future.

What do students want to see in schools and communities, and how best to communicate these actions/ideas? Aalok noticed that a lot of waste is generated in schools. So he interviewed at the township level, and the information became the base of creating a survey that he administered with the help of his Principal in his school. He used the survey results to create awareness in his school and his community. Local information has a much broader impact on a generic statement on plastic. Vidya Binal was concerned about using single-use plastic in her school cafeteria and meeting with the school district Superintendent to discuss this issue. She also made lifestyle changes in her home and influenced many other students to cut down plastic. Sahana Ghosh, a climate reporter at Monagay India, notes that the youth are very responsive in bringing climate change as central to the discussion. Children bring in a surprise element as no one expects them to be so clear and direct with their demands.

Finally, Gopal Patel related to the Bhagavad Gita and referred it to the current time of the ecological crisis. He notes that the Hindu text Gita talks about individual responsibility or dharma to uphold the natural order and natural balance. This lesson is very valid in present-day times. We need our

responsible actions to sustain the natural balance of the world. Teaching of ahimsa or non-violence, so it is our responsibility to limit the harm we cause to other beings.

Overall there was a consensus that climate crises need more than one sector and need more than one discipline to investigate the promising pathways going forward. Educators and students need to be connected to their environments and use various citizen science approach to resolve immediate issues. Action must be at the grassroots level, but the voices need to be heard internationally. This requires more engagement within and beyond the education community. As a result of the workshop, a group of 400 engaged members at various levels have formed a Slack dialogue channel to engage and take action in their own capacities. An edited volume that combines the voices of the youth, education experts, regional experts, and others is planned to be published by September 2020. The Workshop convenors are forming a Roadmap to bring radical change in education thinking and delivery. An event during UNGA 2020 is currently being planned to take the Roadmap to its next stage of development.