

Climate and Resilience
Education Task Force

Draft Scoping Plan Comments
NYSERDA
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May 11, 2022

Climate and Resilience Education Task Force

Climate Action Council Draft Scope Action Plan Testimony

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Delivered at public meeting, May 11, 2022

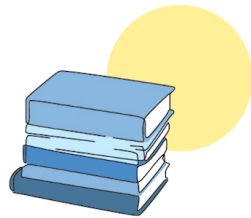
Hello, my name is Emily Fano, Senior Education Manager for the National Wildlife Federation in New York City and Co-Founder and Co-Chair of the Climate and Resilience Education Task Force (cretf.org) - a coalition of over 200 educators, students, NGOs and policymakers working to expand access to climate education and associated teacher training in New York's K-12 schools. The Task Force is co-managed by the National Wildlife Federation in New York City and WE ACT for Environmental Justice. Everyone gathered here knows that we have a very small window of time to address the climate crisis, to avoid catastrophic impacts for all life on Earth.

Young people today are acutely aware of the urgency of this crisis. During the course of their short lifetimes, they have witnessed increasing evidence of what is at stake for their future as those in power repeatedly fail to take action. An example of this is our antiquated education system's failure to meet the urgency of this moment at the scale needed. Without a significant and sustained commitment to K-12 climate education and workforce development, we will never achieve the just transition we claim to desire.

Education is the missing link to address the climate crisis and the United Nations has urged all countries to make it a top priority. According to recent published research on the role of climate change education on individual lifetime carbon emissions, implementation of climate change education at scale over a 30-year period (2020–2050) could reduce carbon emissions by 19 gigatons, an amount that would rank in the top quarter of climate solutions presented in Project Drawdown.¹

And yet, a 2021 survey that our Task Force deployed with the United Federation of Teachers,ⁱⁱ found that a majority of New York City teachers spend an average of just 2 class hours per school year teaching about climate change, which sadly mirrors the national average: 68% of teachers surveyed said they don't have time to teach about the topic despite the fact that 73% believe climate change will harm future generations; 74% expressed interest in attending climate change trainings; and over half said they would support an education mandate that would require students to learn about climate change. A mandate is also supported by many New York State elected officials.

Other states are moving forward. New Jersey has mandated climate education across all K-12 grades and content areas,ⁱⁱⁱ and other states like Washington, California, and Maine are stepping up with programs and funding to increase instructional time.



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It's vital that New York State's 2.6 million K-12 public school students don't get left behind. Incorporating climate change into school curricula and firmly embedding climate education in State policy documents, is imperative if New York is to achieve the ambitious goals of reducing greenhouse gas emissions and achieving the aggressive targets for clean energy use outlined in The Climate Act of 2019. As our state's students become adults, they will play a critical role as both members of the workforce and voting citizens in helping to achieve these targets.

Our Task Force has reviewed the Draft Scoping Plan. While climate education is mentioned throughout the Plan, specifically in chapters 6, 7, 12, 16, 21 and 22, there is no detailed commitment to its comprehensive and equitable deployment, no funding allocation, no timeframe within which it should be delivered, no acknowledgement that it is a critical requirement for achieving our State's climate goals.

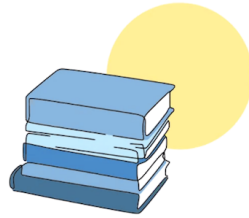
Our Task Force has crafted comments and recommended edits in response to the Draft Plan to remedy this. These comments are posted on our website at www.cretf.org and we are also attaching them below.

Fundamentally, New York must move to develop, mandate, and fully fund comprehensive, globally relevant, interdisciplinary, justice-centered climate education and workforce development programs for New York State's 2.6 million K-12 public school students, in close consultation with stakeholders, including youth and communities most impacted by the climate crisis, to meet our state's climate goals under the Climate Act.

Our Task Force is building a detailed climate education platform and framework, building upon New Jersey's,^{iv} and would be happy to work in consultation with the Climate Action Council to ensure that language and commitment to climate education is embedded in the final Plan.

Action/Section/Chapter Specific Comments:

- **Ch. 5 Overarching Purpose and Objectives of the Scoping Plan:** “The State can set the stage for action, but engagement from all New Yorkers...will impact the ability of New York to make progress toward its goals” (p. 38/28)
 - **Comment:** *Interdisciplinary K-12 climate education should be included among key strategies to meeting New York's vision. Doing so will help New York become a climate action leader and will unify New Yorkers to reach the state's climate goals.*
- **Ch. 6: Achieving Climate Justice:** According to the Draft Scoping Plan, “Disadvantaged Communities” are identified by, among other criteria, “low levels of educational attainment” (33). “The Climate Act requires all State agencies and authorities to prioritize reductions of GHGs and co-pollutants in Disadvantaged Communities and recognizes that actions undertaken by the State to mitigate GHG emissions should prioritize the safety and health of Disadvantaged Communities,



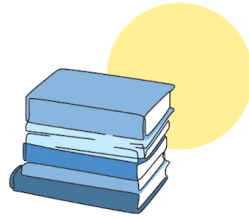
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control potential regressive impacts of future climate change mitigation and adaptation policies on these communities, and prioritize the allocation of public investments in these areas.” (32).

- **Comment:** *The lack of equitable climate education across the state, but particularly in environmental justice and frontline communities, should be considered a vulnerability. Moreover, investment in K-12 public education is a necessary public investment and a priority in Environmental Justice Communities.*
- *The term “Disadvantaged Communities” could be viewed as problematic. Perhaps “historically underserved” or “historically disenfranchised” could be considered more respectful terms.*

- **Ch. 7 Just Transition; Training Curriculum and Programs:** “Additional efforts should target education outreach and clean energy training at traditional education channels such as K-12 schools... General science, technology, engineering, and mathematics programming should be expanded...job placement.” (p.55/45)
 - **Comment:** *Climate education must be more systematically included in K-12 curricula, and should be incorporated into state learning standards, rather than facilitated through auxiliary school programs. Climate education is essential to ensuring that students are prepared to thrive in a climate-altered world and are equipped with the knowledge and skills they will need post-education. Additionally, funds should be identified and appropriated specifically for K-12 climate education.*

- **Ch. 7 Just Transition; Training Curriculum and Programs:** JTWG Table 2. Just Transition Principles → The principles have been developed to support a fair and equitable movement from fossil fuel-based economies toward the achievement of the carbon neutral future envisioned by the Climate Act” (42).
 - **Comment:** *Equitable, interdisciplinary K-12 climate education in public schools is a necessary component of a carbon neutral future in New York State. It is vital that the State’s 2.6 million K-12 public school students have access to high-quality, globally relevant climate education that prepares them to thrive in a climate-altered world and equips them with the knowledge and skills needed for high-skilled jobs in emerging green sectors.*



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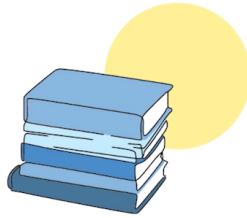
Category	Principle Language
Equitable Access to K-12 Climate Education	Develop interdisciplinary climate education curricula for all of New York State’s K-12 students to create a culture of preparedness through vetted classroom materials.

- **Ch. 12 Buildings; Curricula and Career Services:**
 - ***Comment:** The plan requires building decarbonization curricula in State-funded K-12 education (p. 151/141), however this should be expanded to a comprehensive, interdisciplinary climate education curriculum that is incorporated throughout State standards.*

- **Ch. 13 Electricity; E4: Support Clean Energy Siting and Community Acceptance: Public Education:** “The State should launch a statewide public education campaign to inform New Yorkers about the climate crisis and the benefits of shifting to a clean energy economy. The campaign should focus on community-based outreach and education on climate science and solutions and could include a K – 12 climate change curricula in schools...” (p. 173/163)
 - ***Comment:** Comprehensive, interdisciplinary K-12 climate change curricula are critical for meeting the goal of supporting clean energy siting and community acceptance, therefore more robust language and stronger commitments to K-12 climate education should be used.*

- **Ch. 15 Agriculture and Forestry; AF18. Develop Forestry Training Programs to Support Expanding Workforce and Climate Knowledge:** “WPDC should develop and support workforce development and training programs... including incorporating forest carbon management into curriculums at the high school...” (p. 235/225)
 - ***Comment:** forest carbon management, and other agricultural climate knowledge, should be incorporated into an interdisciplinary K-12 climate education curriculum, not just at the high school level.*

- **Ch. 16 Waste:** includes a brief statement about waste management and recycling related outreach and education (p. 249/239).

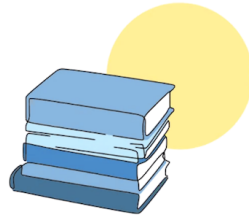


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- **Comment:** *K-12 science and civic curriculum should include education on zero waste, circular economies, product stewardship, recycling, and waste/wastewater management. There is a need for more comprehensive K-12 education components and this should be included in the W2. Waste Reduction, Reuse, and Recycling strategies.*
- **Ch. 21 Adaptation and Resilience; AR3 - Raise student and public awareness:** “The State Education Department should convene a work group to establish a campaign to build student and public awareness of climate change effects and solutions.” (p. 323/313)
 - **Comment:** *The AR campaign should specifically include incorporating climate education regarding adaptation and resilience strategies in K-12 learning standards.*
- **Ch. 22.2 Essential Elements: Outreach and Education:** “Outreach and education to empower every New Yorker to take part in the transition to a low-carbon economy are essential elements to ensure successful implementation of the Climate Act and the strategies described in this draft Scoping Plan” (p.335/325).
 - **Comment:** *Language here should be strengthened by specifically including interdisciplinary K-12 climate education. “Education across all sectors of the economy” should begin with K-12 climate education that covers all sectors to inform the youth who will grow into active members of the workforce and voting population. Interdisciplinary K-12 climate education should be listed as one of the avenues to accomplishing this transition.*
- **Appendix H: Raise student and public awareness (p.5):**
 - **Comment:** *Stronger language, such as requirements for interdisciplinary climate education in K-12 schools should be used in place of “public education and awareness campaign”. Committee should clarify what such a campaign would look like and how it would be implemented. Funding should be specifically allocated to this strategy.*

General Comments in Support of K-12 Climate Education:

Investing in K-12 climate education and NY state’s climate transition is essential to building a strong, resilient, informed community and establishing New York as a climate leader. Climate education is necessary to achieving climate targets as students become full-fledged members of the workforce and voting population.



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Allocating funding specifically for K-12 climate education is necessary to mobilize the state population to commit to green transition. Distributing funding and resources for climate education will enable educators to more effectively communicate lessons and NY state’s leadership to the growing citizenry.

Climate education is gaining momentum across the state and country. New York legislators already support interdisciplinary K-12 climate education because it is necessary for building a culture of preparedness; creating an appropriately skilled workforce for emerging sectors; enhancing civic engagement; building support for state climate policies; reaching emissions reductions goals; achieving climate resilience solutions; and addressing issues of climate justice, especially for communities of color and low income communities

Climate education is necessary to maintain competitiveness. California, Washington and Maine have adopted legislation to improve climate literacy in their curricula and New Jersey has taken the step to incorporate climate education into its K-12 learning standards.

Climate education is necessary to meet the demands of our youth for a livable future and political, social, and environmental empowerment and support for climate education is widespread across educators, students, and parents. Young people have a right to understand the state of the world they are inheriting. Investing in the next generation of New Yorkers is just as important as reducing greenhouse gas emissions, developing clean energy, and preparing communities for climate impacts.

The UN supports climate education for youth as being just as important as measures to reduce greenhouse gas emissions and curb global warming. Climate education develops a culture of caring for the climate and the planet.

Thank you.

Emily A. Fano, On behalf of the Climate and Resilience Education Task Force

Disclaimer: The views expressed in this submission may not fully reflect all of the views and opinions of our members and constituents.

ⁱ <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0206266>

ⁱⁱ <https://bit.ly/38i7OdQ>

ⁱⁱⁱ <https://www.wbur.org/hereandnow/2021/05/07/climate-change-education-nj>

^{iv} <https://www.njsba.org/wp-content/uploads/2022/02/climate-change-ed-online-2-2.pdf>