US Department of Education

Climate Adaptation Plan

September 2021

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Executive Summary

The mission of the U.S. Department of Education (Department or ED) is to promote student achievement and preparation for global competitiveness. Fulfilling this mission requires that we confront the rapidly changing climate, its impact on students, educators, and infrastructure, as well as its implications for the future world in which the United States competes.

The Department's vision for enhancing resilience in the face of the challenges presented by climate change, in response to E.O. 14008, includes leadership to support educator, parent, and student communities that are climate literate and prepared to act in support of climate change mitigation and adaptation, with a particular emphasis on equity. This vision will continue to develop through collaboration with other Federal, state, and local educational agencies as well as non-governmental organizations.

The Department's actions must also include supporting the resilience of state and local educational agencies, schools, and institutions of higher education. This work will emphasize the relationship between climate and equity, particularly equitable access to safe, healthy, sustainable, and resilient 21st century learning environments. This 2021 Climate Adaptation Plan provides a framework to integrate adaptation into management decisions and operations and identifies new opportunities to inform a management, leadership, and policy response based on the identified effects of climate change now and in the future. This Plan is a living document and will be updated as necessary.

Mission

ED's mission is to promote student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access. It does this by:

1. Strengthening the Federal commitment to ensuring access to equal educational opportunities for every individual;
2. Supplementing and complementing the efforts of states, local school systems and other instrumentalities of states, the private sector, public and private nonprofit educational research institutions, community-based organizations, parents, and students to improve the quality of education, while encouraging the increased involvement of the public, parents, and students in Federal education programs;
3. Promoting improvements in the quality and usefulness of education through Federally supported research, evaluation, and sharing of information;
4. Improving the coordination of Federal education programs;
5. Improving the management of Federal education activities; and
6. Increasing the accountability of Federal education programs to the President, the Congress, and the public.

The Department's FY 2014 Climate Change Adaptation Plan articulated the potential for climate change to affect the Department's mission.

> "Climate change could have an effect on the Department's overall mission of promoting student achievement and preparation for global competitiveness. Climate change could have

an effect on the Department's ability to ensure equal access to educational opportunity for every individual. Climate change could have an effect on the Department's efforts to supplement and complement the efforts of states, local school systems, and other instrumentalities of the states."

With this FY 2021 Climate Adaptation Plan, the Department acknowledges that climate change is affecting the Department's mission and the need for comprehensive and urgent action to promote adaptation and resilience through the Department's programs and operations.

Past ED sustainability action plans, climate change adaptation plans, and environmental justice plans were designed to bring ED into this work.[1] This plan builds upon the lessons learned from those earlier plans to offer new actions that the Department can undertake to better adapt to climate change and develop both agency resilience as well as resilience across the nation's schools.

U.S. Department of Education Policy Statement on Climate Change Adaptation

I. Background:

a) In 2020, the United States experienced a record-breaking 22 natural disasters that each resulted in at least $1 billion in damages, including a record 7 linked to landfalling hurricanes or tropical storms. As these extreme weather events experienced across the United States have shown, climate change is affecting communities, school districts, and institutions of higher education. Moreover, certain disadvantaged communities bear disproportionately high and adverse human health, environmental, and climate-related impacts.[2] Climate change adaptation is a critical complement to mitigation; both are required to address the causes and consequences of climate change.

b) Adaptation planning will allow the Department to minimize negative impacts of climate change that are already occurring and take advantage of any new science or technologies that may mitigate or moderate climate change in its operations. Furthermore, through its example, the Department can reinforce the importance of climate adaptation planning to states, districts, schools, and institutions of higher education.

c) Through adaptation planning, the Department will deepen its understanding of how climate change is impacting its ability to operate its facilities and meet its policy and program objectives. Through adaptation planning, the Department will develop, prioritize, implement, and evaluate actions to moderate climate change risks and explore new potential opportunities that are consistent with the Department's mission and the changing world around us.

d) By integrating climate change adaptation strategies into our programs and operations, the Department better ensures that taxpayer resources are invested wisely, and Department services and operations respond effectively to current and future climate conditions.

e) Through climate adaptation planning, the Department is contributing to the Federal Government's leadership role in sustainability and pursuing the vision of a resilient, healthy, just, and prosperous nation in the face of a changing climate.

II. Directive:

a) The goal of this policy is to ensure that the Department:

   i. executes and adapts its mission and operations securely, effectively, and efficiently as the climate continues to change,

   ii. exhibits leadership in the areas of climate adaptation planning,

   iii. advances educational equity and justice in the context of climate adaptation, and

   iv. complies with E.O. 14008, which directs agencies to take action to address the climate crisis at home and abroad.

b) This policy reaffirms the need to integrate climate change adaptation planning and actions into Department programs, policies, and operations.

c) The Department shall take on climate change adaptation planning and action measures making use of the best available data and information.

d) The Department shall develop and publish a Department-wide climate adaptation plan no later than September 2021. The plan shall include consideration of each of the Department's Principal Offices, as appropriate, and incorporate this policy statement. The plan will identify how climate change is impacting the Department's ability to achieve its mission, effectively operate its programs, promulgate effective policies, and manage its operations. The plan will identify priority adaptation actions and establish mechanisms to evaluate progress toward continually improving the Department's capacity to effectively adapt to current and future changes in the climate. The Department shall produce progress reports on the status of implementation efforts. The Department shall make progress reports public and post them on the Department's website, to the extent consistent with applicable law.

e) The Department shall fully consider the Interim Instructions for Preparing Draft Climate Action Plans issued by the White House Council on Environmental Quality under Executive Order 14008, Tackling the Climate Crisis at Home and Abroad, and other applicable authorities.

f) The Department shall, in a manner consistent and compatible with its mission, analyze how climate change and environmental justice are impacting its ability to achieve its mission, promulgate effective policy, operate its programs, and meet its operational objectives by reviewing existing programs, operations, policies, and authorities to: (1) identify potential impacts of climate change and environmental justice on Principal Office areas of responsibility; (2) prioritize and plan for implementation of response actions; and (3) assess and improve capacity to adapt to current and future changes in the climate and advance environmental justice.

g) In particular, the Department shall: 1) leverage its leadership to inform the education sector in promoting climate adaptation; and 2) consider appropriate inclusion of climate change vulnerabilities, impacts, and adaptation strategies in policies, programs, guidance, technical assistance, and data initiatives.

The Department will coordinate with other agencies and interagency efforts, including the National Climate Task Force and the Environmental Justice Interagency Council, on climate change adaptation and environmental justice issues that cut across agency missions, including areas where national adaptation plans are being or have been developed, and will identify a process for sharing climate change adaptation planning information throughout the Department and with the public.

III. Department Coordination and Implementation

a) The Deputy Secretary is responsible for ensuring implementation of all aspects of this policy. This policy does not alter or affect any existing duty or authority of individual components or Principal Offices.

b) The Department Climate Change Adaptation Work Group will coordinate Department-wide climate change adaptation planning and implementation. The Work Group will be chaired by the Deputy Secretary and will include representation from Principal Offices, as appropriate.

c) This policy is effective immediately and will remain in effect until it is amended, superseded, or revoked.

Date: 09/09/2021

Miguel A. Cardona, Ed.D.

Agency Responsibility

The Chief Adaptation Officer for the U.S. Department of Education is the Deputy Secretary. The Deputy Secretary is responsible for ensuring implementation of all aspects of the Climate Adaptation Plan and associated laws, guidance, and policies. As such, the Chief Adaptation Officer has been given authority to review the laws, establish program responsibilities, monitor climate change adaptation actions, evaluate the need to adjust activities as new information becomes available, and review and update the climate plan. The Climate Change Adaptation Work Group will collaborate with internal and external stakeholders to evaluate programs and operations related to this plan, as appropriate.

Identified Climate Change Risks to ED Mission

The Fourth National Climate Assessment details a range of climate change impacts that affect the Department's ability to carry out its missions, operations, and programs.[1] Major climate change events include flooding, hurricanes, tornadoes, extreme heat, extreme cold, wildfires, and drought.

[1] USG CRP, 2018: Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 1515 pp. doi: 10.7930/NCA4.2018.

In 2020, the United States experienced a record $22 billion in damage from weather and climate disasters.[2]

Climate change is impacting students, schools, and communities across the country. In California, in the 2018-2019 school year, more than 1 million students were impacted by school closures due to wildfires.[3] After Hurricanes Maria and Irma in Puerto Rico, students missed an average of 78 days of school.[4] Reporting in 2017 found that 6,353 schools serving 4 million children are in a floodplain.[5] As just one example, flooding in West Virginia in June 2016 caused $130 million in damage to schools.[6]

Climate change impacts on students, families, schools, and communities across the country are present, severe, and worsening. Pathways through which climate change affects student achievement include school closures due to extreme weather or unsafe conditions, poor environmental conditions within schools that impede learning, students' own personal health and safety, increased social and emotional anxiety related to climate change and extreme weather events, and increased migration and economic disruption for households and communities.

Students and schools in certain disadvantaged communities are particularly exposed to climate change impacts. The Fourth National Climate Assessment lays out a clear nexus between equity and climate change: "People who are already vulnerable, including lower-income and other marginalized communities, have lower capacity to prepare for and cope with extreme weather and climate-related events and are expected to experience greater impacts. Prioritizing adaptation actions for the most vulnerable populations would contribute to a more equitable future within and across communities." Schools with higher enrollment of low-income students are far more likely to have permanent buildings that are in poor or only fair condition than other schools.[7] According to the Federal Emergency Management Agency (FEMA), aging buildings are particularly vulnerable to natural disasters.[8] Students' performance is negatively affected by elevated temperatures in classrooms, and extreme heat days are responsible for school closures where facilities are not equipped with air-conditioning.[9]

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[2] Record number of billion-dollar disasters struck U.S. in 2020 | National Oceanic and Atmospheric Administration (noaa.gov)

[3] See Disaster Days by CalMatters and the CA Department of Education. Available at: https://disasterdays.calmatters.org/california-school-closures

[4] Average Puerto Rican Student Missed 78 Days of School After Maria, Study Finds (edweek.org)

[5] Urahn, S.K. and Wathen, T. (2017) "Flooding Threatens Public Schools Across the Country: Infrastructure analysis evaluates county-level flood risk" The PEW Charitable Trusts. Available at: https://www.pewtrusts.org/-/media/assets/2017/08/fpc_flooding_threatens_public_schools_across_the_country.pdf

[6] The Intelligencer (2019) "West Virginia Lawmakers Quickly OK Flood Cost Bill" September 20. Available at: https://www.theintelligencer.net/news/top-headlines/2016/09/west%E2%80%88virginia-lawmakers-quickly-ok-floodcost-bill/

[7] Debbie Alexander & Laurie Lewis (2014). Condition of America's Public School Facilities: 2012–13, NCES 2014-022, U.S. Department of Education, National Center for Education Statistics. Available at: http://nces.ed.gov/pubs2014/2014022.pdf

[8] FEMA (2017) "Safer, Stronger, Smarter: A Guide to Improving School Natural Hazard Safety" June. Available at: https://preparecenter.org/sites/default/files/natural_hazards_school_safety.pdf

[9] Greenberg, Zoe (2018) "Is the Heat Day the New Snow Day?" The New York Times, September 6. Available at: https://www.nytimes.com/2018/09/06/nyregion/heat-day-schools-extreme-climate-change.html

Evidence suggests that hot weather days disproportionately affect students of color and are responsible for approximately 5% of the racial achievement gap.[10] Beyond navigating and responding to the physical impacts of climate change, the Department must respond to the changing set of skills and mindsets required to prepare the people of today to live sustainably and thrive in a rapidly changing climate. All students deserve to attend sustainable schools that enhance their health and wellness, prepare them for 21st century careers, and support a thriving planet. The Department's Climate Adaptation Plan looks to implement strategies that put the nation on the path toward sustainable, healthy, resilient, and equitable learning environments.

Priority Adaptation Actions

Priority Adaptation #1: Leadership and Public Engagement

Description

[Existing Effort] Leverage ED leadership to activate the education sector in promoting climate adaptation, environmental and sustainability literacy, and environmental justice.

Goal

Help educators, students, and parents to understand and adopt ways to combat climate change through the education system.

Agency Lead

Office of the Deputy Secretary and Office of Communications and Outreach (OCO).

Opportunities

- Embrace the role of education in the climate emergency and inspire others to do the same.
- Elevate the connections between education and climate adaptation and the opportunities for addressing climate change adaptation within the education sector.
- Leverage expertise and a track record of leadership related to sustainable schools within the Department.
- Leverage OCO's expertise in sustainable schools from developing and overseeing the existing U.S. Department of Education Green Ribbon Schools (ED-GRS) recognition award. (This program also provides ED with some state education agency contacts related to infrastructure and environmental learning and examples of success to highlight in messaging.)
- Develop staff knowledge and the familiarity of ED staff with climate change concepts so the agency is prepared and able to embark on this work.

[10] Park, R. Jisung, Joshua Goodman, Michael Hurwitz, and Jonathan Smith. 2020. "Heat and Learning." American Economic Journal: Economic Policy, 12 (2): 306-39.

Risks

The education community may not see a direct connection between this issue and providing educational opportunity to all students.

Scale - National

Timeframe - Ongoing public outreach and engagement events.

Implementation Methods

- Consistently communicate the importance of climate adaptation and mitigation.
- Conduct regular visits to sustainable and resilient schools.
- Support Federal, state, and local efforts related to sustainable and resilient schools.
- Conduct self-assessments to align climate vulnerability assessments with disaster planning, COOP planning, and ED publication standards. (The review process will include the collaboration of leadership across ED.)

Performance

- Media coverage promoting ED efforts to support and promote sustainable, resilient schools.
- Growth in applications to the ED-Green Ribbon Schools recognition award.
- Participation in environment, sustainability, and climate related events by senior leadership.

Intergovernmental Coordination

ED will work with the White House as well as other Federal agencies to coordinate and support efforts related to climate adaptation and mitigation. ED will work with the General Services Administration (GSA) to identify the vulnerabilities in each of the buildings and/or regions in its leased portfolio. This collaboration will assist ED to develop informed responses to disasters with the goal to minimize the impact to operations, address potential problems before they occur, create redundancy in critical systems or sites, and identify projects to increase the use of sustainable products or services.

Resource Implications

ED could leverage existing staff knowledge and pro bono technical assistance from stakeholders. Travel funds would not likely exceed what is normally required of the Office of the Secretary and OCO, and some gift travel is available in this area with outside entities offering to cover the cost of travel.

Challenges/Further Considerations

Balancing these issues with other pressing demands related to reopening schools and managing the ongoing pandemic.

Highlights of Accomplishments to Date

- The Secretary and Deputy Secretary are engaged in public discussions regarding climate and sustainable, healthy schools. Their efforts are leading to a broader focus within the agency.
- ED leadership has played a visible and supportive role for schools and communities experiencing negative impacts from climate change.
- ED-GRS for more than 10 years has highlighted the practices of schools, districts, and postsecondary institutions making efficiency, conservation, health, and environmental education a priority.

Priority Adaptation #2: Policy, Guidance, and Programs

Description

[New Action] Imbue agency guidance, policies, and program design with an understanding of climate change vulnerabilities, impacts, and adaptation strategies.

Goal

The Department's guidance, policies, and program designs promote climate adaptation, environmental and sustainability literacy, and equitable access to healthy, safe, sustainable, resilient, 21st century learning environments (environmental justice).

Lead

Office of Planning, Evaluation, and Policy Development in partnership with grantmaking or policy offices (e.g., Office of Elementary and Secondary Education, Office of English Language Acquisition, Office of Special Education and Rehabilitative Services, Office of Postsecondary Education, Office of Career, Technical, and Adult Education, and Office for Civil Rights).

Opportunities

- ED's policy, guidance, and programs inform and support states, districts, schools, institutions of higher education, and other partners in the private and nonprofit sectors.
- This work supports the climate change commitments of the Biden Administration (e.g., greenhouse gas emission reductions, Justice40 initiative).
- There is a robust and growing community of supportive advocates for climate change work in states and nongovernmental organizations who will welcome and could provide pro bono technical assistance and feedback on this effort.
- ED will begin to improve climate literacy among a broad range of agency staff, so the agency is prepared and able to embark on this work. Due to the multidisciplinary nature of the work, ED will need to identify and collaborate with appropriate partners.
- The White House Council on Environmental Quality, the National Climate Taskforce, and the Office of the National Climate Advisor represent knowledgeable allies.

Risks

- ED has only a handful of small grant programs that fund school infrastructure or relate directly to climate change.

Scale: National

Timeframe: Immediate start and aligned with climate adaptation by FY 2025.

Implementation Methods

- Initiate agency effort to enhance climate literacy in its management workforce (Topic Area 2).
- Hold stakeholder meetings to immediately identify high-leverage opportunities to update guidance, technical assistance, and other policies.
- Develop policies and procedures to consistently apply a climate adaptation lens to the agency's guidance and policies.
- Develop the knowledge and familiarity of ED staff with climate change concepts so the agency is prepared and able to embark on this work.

Performance

- The Office of Human Resources will develop a strategy and execute a plan to enhance climate literacy and capacity related to climate change adaptation within ED.
- New processes will reflect the intention of the agency to consistently and appropriately incorporate climate change into guidance, policies, and programs.
- Guidance and requirements for existing programs will be reviewed and updated to appropriately incorporate environmental and sustainability literacy.
- ED will collect feedback from stakeholders to inform actions.

Intergovernmental Coordination

Given the multidisciplinary nature of the work, ED will benefit from ongoing communication with knowledgeable individuals and teams at the White House Council on Environmental Quality, Environmental Protection Agency, Department of Energy, Department of Transportation, Department of Agriculture, and National Oceanic and Atmospheric Administration, among others.

Resource Implications

A time commitment of existing ED employees to consider guidance, policies, and programs with a climate lens. Possible hiring of new expertise or training of existing employees in these areas.

Challenges/Further Considerations

- Effective design and implementation of agency human capital development programs to increase climate literacy will be essential to enable and support this work throughout the agency.

- The President's American Jobs Plan proposal would provide $112 billion to modernize K-12 schools and institutions of higher education, which would require ED to develop new policies and guidance, where appropriate.

Highlights of Accomplishments to Date

- Since Hurricanes Katrina and Rita in 2005, ED has assisted state educational agencies, local educational agencies, and institutions of higher education (IHEs) in post-disaster related activities through programs supported through emergency appropriations, including emergency aid to IHEs and schools, and through Project School Emergency Response to Violence (Project SERV), which is funded annually. School closures due to major disasters disrupt educational opportunities for students, and the Department has partnered with states, schools, and institutions of higher education to support their recovery.
- Another example is the Department of Education Disaster Recovery Unit, which provides resources to K-12 and higher education communities following natural disasters, such as the Texas ice storm of 2021 and wildfires in 2020 and 2021.

Priority Adaptation #3: Technical Assistance

Description

[New Action] Enhance the capabilities and knowledge of the Department related to climate adaptation in educational settings.

Goal

Address the needs of state and local educational agencies for specialized knowledge related to climate adaptation strategies.

Agency Lead

Office of Elementary and Secondary Education, Office of Postsecondary Education, Office of Career, Technical, and Adult Education, with the Institute of Education Sciences (IES).

Opportunities

- Schools are currently experiencing the impacts of climate change and require adaptation to enhance resilience. In other words, there is an urgent need for specialized knowledge related to climate change adaptation in schools. ED has an opportunity (and responsibility) to develop capacity related to this existential challenge facing schools and communities.
- Climate change vulnerabilities and adaptation strategies vary based on geography (i.e., climate change adaptation in the Northeast region differs from climate change adaptation in the Southwest region). ED has an opportunity to build capacity related to specific adaptation strategies for schools in different geographies**.**
- Leading states have accumulated experience and expertise related to climate literacy. This capacity may be leveraged to share examples from across the country for consideration by state and local leaders.

- Building on the U.S. Department of Education Green Ribbon Schools recognition award and Green Strides School Sustainability Resource Hub, ED will increase its capacity to support states, districts, schools, and institutions of higher education by disseminating resources related to school facilities and climate education.
- ED will explore which current ED-funded technical assistance providers are positioned and suited to provide technical assistance to states, districts, schools, and institutions of higher education regarding climate adaptation strategies.

Risks

- ED's technical assistance centers would need to incorporate work related to climate adaptation within existing responsibilities.

Scale – National

Timeframe – Beginning in 2022 and Ongoing

Implementation Methods

- Assess current capacity within ED to provide technical assistance to address the needs of states and local educational agencies (LEAs) within their geographies.
- Develop new partnerships with technical assistance providers to enhance support for states and LEAs.
- Explore opportunities to enhance data efforts within IES, along with other evidence-building partners within and beyond the Department, to inform climate adaptation work and the promotion of equitable access to healthy, safe, sustainable, resilient, 21st century learning environments (environmental justice).
- Develop a plan to leverage and enhance existing capacity within the Department.
- Leverage the Green Ribbon Schools recognition award and the Green Strides School Sustainability Resource Hub to provide technical assistance more broadly.
- Develop Dear Colleague Letters with recommendations and resources for states and districts related to climate change adaptation and literacy.
- Review existing National Center for Education Statistics (NCES) mapping projects to evaluate them for superimposition with data from the Environmental Protection Agency (EPA), National Oceanic and Atmospheric Administration (NOAA), and Energy Information Administration (EIA) to form the basis for monitoring environmental conditions.

Performance Measures

- ED has developed a strategy for internal capacity-building related to education and climate change.
- ED has identified and developed partnerships with relevant bodies (including other Federal agencies, state agencies, research organizations, and other nongovernmental organizations) to complement and enrich ED expertise.
- ED has issued research, reports, newsletters, and/or other work products related to climate change.

- Other Federal agencies, state and local education agencies, schools, and other stakeholders see ED as a resource at the intersection of climate change and education.

Intergovernmental Coordination

- ED will coordinate with the Departments of Energy, Labor, Transportation, and Agriculture to understand emerging workforce development needs, as well as technical subject matter expertise related to climate adaptation, transportation, and agriculture sectors.
- Coordination with NOAA will provide subject matter expertise on climate change vulnerabilities, current and forecasted.
- Coordination with FEMA will inform technical assistance related to pre-disaster mitigation activities as well as post-disaster recovery.
- Coordination with EPA will inform environmental conditions affecting students and potential regulatory matters.

Resource Implications

A time commitment of existing ED employees to consider guidance, policies, and programs with climate considerations in mind.

Highlights of Accomplishments to Date

- Developed the Green Strides School Sustainability Resource Hub in coordination with the Center for Green Schools at the U.S. Green Building Council.
- Provided emergency/disaster-related responses and support for impacted states and districts. (Since Hurricanes Katrina and Rita in 2005, ED has assisted state educational agencies (SEAs) and LEAs in post-disaster related activities through programs supported through emergency appropriations, including emergency aid to restart schools, and through Project SERV, which is funded annually. School closures due to major disasters disrupt educational opportunities for students, and the Department has partnered with states, schools, and institutions of higher education to support their recovery. Under the Readiness and Emergency Management for Schools (REMS) program, the Department provided grant funding to support efforts by LEAs to create, strengthen, and improve emergency management plans at the district and school-building levels, including training school personnel on emergency management procedures; communicating with parents about emergency plans and procedures; and coordinating with local law enforcement, public safety or emergency management, public health, mental health agencies, and local government. Grant funds could be used for: reviewing and revising emergency management plans; training school staff; conducting building and facilities audits; communicating emergency response policies to parents and guardians; implementing the National Incident Management System (NIMS); developing an infectious disease plan; developing or revising food defense plans; purchasing school safety equipment (to a limited extent); conducting drills and tabletop simulation exercises; and preparing and distributing copies of emergency management plans**.**

TOPIC AREAS

Topic 1: Update Climate Vulnerability Assessments

While ED has not yet updated its vulnerability assessment, building on prior adaptation actions and climate vulnerability assessments outlined in the FY 2012 ED Climate Change Adaptation Plan and subsequent internal working groups, ED will update the agency's most recent assessment using the latest climate information included or referenced in the Fourth National Climate Assessment. This update will begin with identifying and assessing five vulnerabilities directly tied to management functions and decision points for managing procurement, real property, and financial programs as suggested by the Council on Environmental Quality (CEQ).

These vulnerability assessments will include descriptions of 1) the climate threat and the expected impact, including the impact of no action; 2) the determined adaptation action, including the known barriers to implementation; 3) an estimate of the timeline and any measures for indicating progress over time and success; 4) a determination if managing the risk and overcoming the barrier are achievable within existing agency resources or consistent with the agency's budget request; and 5) identification of how the vulnerability either is or will be disclosed in annual agency financial reporting and integrated into the agency's enterprise risk management process.

ED will update its Guide to School Vulnerability Assessments[11] to include updated climate change information and resources provided by the US Global Change Research Program and the Fourth National Climate Assessment. The guide describes the key elements to be considered when selecting an assessment tool appropriate for school environments and provides guidance for conducting an assessment that will inform school emergency management activities.

Topic 2: Efforts to Enhance Climate Literacy in Its Management Workforce

The Department is considering the following efforts to enhance climate literacy:

- Develop ED employee rewards and recognition programming for leadership in climate adaptation, resilience, and sustainability.
- Launch climate literacy education and communications programs to mainstream adaptation actions and integrate adaptation actions into the management of programs and operations.
- Update its Human Capital Operating Plan (HCOP) to ensure agency capacity to bring climate adaptation and resilience leadership to agency programming and operations.
- Establish major key milestone date(s) in 2022 to initiate efforts to create the learning platform.
- Engage and leverage the work of other government agencies and nonprofits that have developed tools for climate literacy that will benefit ED's employees.
- Use an incremental approach to pilot classes among a select group of managers in the agency for the purpose of obtaining feedback, applying lessons learned, and addressing challenges.

[11] https://rems.ed.gov/docs/Guide_for_Developing_High-Quality_School_Emergency_Operations_PlansResources07172013R.pdf

- Develop the action plan to roll out the training to every manager and ultimately to every employee once the trial period has ended.

Topic 3A: Agency Actions to Enhance Climate Resilience (Climate-Ready Sites and Facilities)

ED leases all its facilities and, therefore, does not have control over many of the factors that go into climate-ready sites and facilities. ED will work with GSA in its modernization and lease renewal process to ensure/enhance climate adaptation. Agency actions to enhance climate-ready sites and facilities will build on previous success in the ED Space Modernization Program (ESMP), Federal Real Property Portfolio Programs, and ED-GRS recognition award. ED will review current programs and initiatives and update all programming requirements, standards, and criteria. This information will support a determination of whether and how adaptation criteria and requirements are integrated into management functions and decision points for these processes. ED will also develop criteria to advance the equitable distribution of environmental risks and benefits and to avoid maladaptation (i.e., increasing the environmental burden on vulnerable communities) in accordance with E.O 13985 and E.O. 14008.

The ESMP is continuously working to reduce ED's footprint and implement facility space initiatives to meet this goal. In conjunction with GSA, ESMP requires compliance with standards in construction and furniture procurements to build high-performance sustainable office space. This effort begins with design practices, construction, and building operations, to protect occupants' health, wellness, and productivity. ED is committed to meet or exceed Executive Order 13834, Planning for Federal Sustainability in the Next Decade, to achieve a more sustainable design for its newly modernized office space.

Compliance: Beginning with sustainable acquisition, ED supports GSA in its efforts to ensure that applicable contracts contain the appropriate requirements to meet standards set by, but not limited to:

- Environmental Protection Agency (EPA)
- National Institute of Standards and Technology (NIST)
- Federal Energy Management Program (FEMP)
- US Green Building Council (USBC)
- Leadership in Energy and Environmental Design (LEED)

Construction: LEED is the most widely used green building rating system in the world. GSA and ESMP require that all new leases follow LEED as a framework for healthy, highly efficient, and cost-saving green buildings. Contractors must submit product data as official Environmental Requirements Declarations (EPD) and Health Product Declarations (HPD).

All products and services purchased by GSA, and used in ED facilities, must meet strict sustainability requirements including:

- Low Volatile Organic Compounds (VOCs)
- Indoor Water Use reduction (plumbing and appliances)
- Chain of Custody (transport/shipping/flow of materials)
- Forest Stewardship Council (FSC) (point of harvest/extraction/recovery)

- Waste management (divert construction debris from landfills and incinerators)
- Low Emitting Diodes (LED) fixtures with automatic lighting controls
- Building Monitoring & Controls (BMC) for Heating, Ventilation, and Air Conditioning (HVAC)

Furnishings, Fixtures, and Equipment: Additionally, ED's Contract Acquisition Management (CAM) group and GSA's Integrated Workplace Acquisition Center (IWAC) have established Blanket Purchase Agreements (BPAs) for Furnishings, Fixtures, and Equipment (FF&E). Only environmentally responsible products, which support ED's commitment to conserving materials and natural resources and use clean technologies in manufacturing processes and achieve certifications from third-party organizations such as those listed below, will be procured or allowed in ED facilities.

- Business and Institutional Furniture Manufacturers Association (BIFMA) certification
- Forest Stewardship Council (FSC)
- GREENGUARD Environmental Institute
- Cradle to Cradle Certified
- International Organization for Standardization (ISO) 14001
- SCS Indoor Advantage Gold
- MTS, a SMaRT Certification

Real Estate Portfolio: ED is a tenant in all the buildings it occupies, and energy, water, and waste management services are all included in its leases and thus paid by GSA. However, working with GSA, through the ESMP, ED is 1) reducing the size and number of leased locations; 2) redesigning spaces to support different work patterns and activities, including innovative space layouts, increased natural lighting, and enhanced technology integration; and 3) meeting OMB guidelines to achieve an average of 150-180 useable square feet per person. Below are highlights of recent ESMP Projects:

- ED's strategic priorities are currently focused on the Headquarters Consolidation Project, which includes increasing the density and modernizing the Lyndon Baines Johnson (LBJ) Headquarters (HQ) Building and Potomac Center Plaza (PCP) to vacate 216,600 square feet of space at Union Center Plaza by 2026.
- The ED Dallas relocation project was completed in 2021, with a 50% reduction in square footage. New York and Philadelphia relocation projects will also lower the agency's overall environmental impact. New York will have a 38% reduction in square footage in FY 2023, and Philadelphia will have a 30% reduction in square footage in FY 2024.
- As a result of heavy teleworking in 2020 and 2021 due to the COVID pandemic, ED recognized the opportunity to support a long-term teleworking plan and continue the momentum of reducing the size of the portfolio. All remaining ED facilities are undergoing evaluation in FY 2022 for opportunities to save space, cost, and greenhouse (GHG) emissions.

Other ED initiatives include:

- The Office of the Chief Information Officer (OCIO) will review operational procedures to reduce energy usage for IT equipment. One example includes reducing the amount of equipment for each user. As the agency implements new telework policies, OCIO will play a significant role in designing facilities to incorporate energy efficient printers, monitors, etc., to

support ED's workforce and address climate adaptation in technology investments. OCIO works closely with ESMP on all new construction and renovation projects in all ED facilities.
- The Office of the Secretary and Deputy Secretary will build infrastructure employing strategies/decisions that minimize the impact on future successors' ability to sustain the initiatives, services, or programs that are implemented in response to E.O. 14008.

An additional consideration for climate-ready sites and facilities is that systems to address adaptation, physical infrastructure, and natural environments can be very costly, especially when retrofitting existing buildings. Managing expectations appropriately will reduce the risks when executing long-term facilities investments. ED leadership will need to support and fund new initiatives to meet the objectives of climate adaptation, making projects a priority in capital planning.

The capital planning process is linked to the budget available to support making incremental changes to ED's environments. Each project is evaluated based on merit and the long-term return on investment as well as other OMB Directives to reduce the footprint. Although the projects are highlighted in the 2020 Sustainability Report and the 2021 Capital Plan, they are interlinked with this Climate Action Plan. ED will ensure that there are consistent management decisions and/or review of the projects that are still in the planning phases to increase opportunities to address products and services that will adapt to climate change objectives. The long-term strategy is to make incremental changes in all the buildings to include adding infrastructure for climate resilience and at the same time provide co-benefits for the future use of electric vehicles, water stations, and HVAC updates that include filtration for harmful bacteria or other contaminants

Highlights of Accomplishments to Date

- To date, ED has utilized innovative space design and technology enhancements in all new renovated space. Wherever possible, lowering operating costs is the focus for each project. This is done by increasing natural light flooding the space, lowering panel heights, and using glass partitions for additional protection and surfaces that do not dampen light penetration. ED also includes touchless fixtures in restrooms and pantries helping to reduce water consumption and energy bills. Working with GSA, to date modernization projects have been implemented in Chicago and Dallas (regional offices) and two floors in the LBJ and PCP HQ buildings.
- ED has already researched the impact of adding electric charging stations in GSA-owned HQ facilities with the objective to start this project in FY 2022.

Topic 3B: Enhance Climate Resilience (Climate-Ready Supply of Products and Services)

The Office of Acquisitions and Grants Administration is the lead for actions to support a climate-ready supply of products and services. ED follows the Federal Acquisition Regulations (FAR) for purchasing products and services. This existing effort by ED includes climate change adaptation components in grants and contract awards as feasible, consistent with statute and regulations. Contract policies and language are updated to mandate GREEN purchasing to the maximum extent practicable for all applicable procurements in the planning, award, and execution phases of acquisitions. ED will review current programs and initiatives and update programming requirements, standards, and criteria with the goal to leverage the Federal Government's ability to lead by policy and example.

ED will develop tools and methods to assist management with decisions that include anticipating climate change. Performance will be based on the number of grants awarded and the dollar amount of each award to each grantee. ED designs contracts to include GREEN purchasing requirements for all new applicable contracts and agreement vehicles, where applicable.

In terms of ED purchases, the Department will continue to benchmark GREEN purchasing with GSA and other agencies of similar size. ED also will continue to meet with national education leaders and Federal and state governments with the purpose of sharing information about how climate change events may be limiting equitable education opportunities and how to address those issues.

ED will review its supply chain to determine the critical areas that may have an impact on the performance of its mission and assess operational resiliency during climate change events. For example, operational components may be shifted when regional areas are impacted by extreme heat, power outages, or internet outages. These types of events may affect the IT infrastructure, staff capabilities to perform duties, school closings, and communities that are served by ED. These potential impacts will be included in the Department's vulnerability assessments to prepare management for proactive responses.

ED's Contract Management Division may include training on GREEN Procurement for existing contract professionals. Position Descriptions for new hires may also be updated, as appropriate, to include GREEN purchasing.

ED will establish an implementation schedule for a climate-ready supply chain that will allow for incremental review of, and updates to, the GREEN purchasing policies and all grants and contracts. The level of effort, particularly in the pandemic environment, is significant. Consideration of the major impact on workload to meet these goals is necessary. Management buy-in and clear decisions are also necessary to redirect resources appropriately.