

RESILIENCE 21

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**BUILDING A NATION
OF RESILIENT COMMUNITIES**

THE FIRST 100 DAYS

Twenty-one years into the 21st century, we find our nation in existential crisis, with the very foundations of our society besieged and crumbling: our social compact, government institutions, public health, physical infrastructure, and natural environment—even our shared reality and American ideals. What progress has been made over our nation's history towards social equity erodes again, leaving our most vulnerable people more vulnerable still. We can no longer ignore the crises we face—some of which, like climate change, are gaining intensity.

The 21st century will be a tumultuous one in which we grapple with the known consequences of our past failures and the novel threats of a world changing faster than human comprehension and action. Yet there is still time to limit unnecessary suffering and secure a bright future if we have the courage to adapt. Resilience is the capacity of individuals, institutions, communities and systems to withstand or recover quickly and completely from shocks and stresses—whether they be social, economic, environmental, or otherwise—and it is a trait that America must grow to embody from top to toe. This crisis can only be truly addressed through a coordinated approach that resolves past wrongs while implementing a robust, coordinated set of solutions with resilience as both the goal and the mechanism for change.

With conscientious effort and deep commitment, the Biden-Harris Administration can drive a generation of unprecedented transformation—one in which building resilience becomes an integral part of government action at all levels and American communities are empowered to adapt to the harsh realities of a changing world.

Resilience 21 is a coalition of more than 50 of the nation's leading practitioners working with cities and communities of all sizes and types to build resilience to present and growing shocks and stresses, with an emphasis on the natural hazards worsened by climate change, and the exacerbated impacts faced by marginalized communities. Drawing on our expertise as planners, architects, engineers, scientists, meteorologists, and policymakers, and our relationships with diverse constituencies, we offer this agenda to guide the actions of the federal government over the next four years.

The Challenge

Existing shocks and stresses in our nation have been deeply exacerbated by the cascading effects of climate change and the “global storm” of the COVID-19 pandemic. This collision has revealed to us that we need a holistic review and resetting of the policies, institutions, and systems that reduce the fragility of our nation, particularly for those already vulnerable communities. Many of these “frontline” communities bear a greater burden as insufficient support systems lead to exacerbating inequities. The United States as a whole, and particularly members of Black, Indigenous, Persons of Color (BIPOC) communities, are now ill-prepared to withstand the social, economic, and environmental problems that trouble our country today and those that will require our combined effort in the coming years. The impacts of disasters have drained our nation and our communities of financial, social, and environmental capital. This past year set the new annual record of 22 events causing \$1 billion or more in losses—shattering the previous annual record of 16 events that occurred in 2011 and 2017. 2020 is the sixth consecutive year (2015-2020) in which 10 or more billion-dollar weather and climate disaster events have impacted the United States¹.

These statistics account for just the physical losses associated with disaster, not the toll they take on our lives. Climate change is increasing the frequency and intensity of these events and will continue to do so. These tolls are also disproportionately borne by people of color and local economies.

The nation is in crisis. Historically disadvantaged communities have been neglected while the nation is vulnerable to the social, economic, and environmental stresses presented by natural hazards. This crisis can only be truly addressed through a coordinated approach that resolves past wrongs while implementing a robust, coordinated set of solutions. The Biden-Harris Administration is in the position to lead the U.S. past this crisis.

We believe many of the nation’s challenges are interrelated and can best be solved through a coordinated strategy grounded in concepts of resilience. A resilient community or nation is one that identifies and addresses its vulnerabilities and the vulnerabilities of its residents to assure that all social, economic, and environmental needs are met in times of calm and in the face of hazards.

While our recommendations are ambitious, they are achievable and equitable, placing people, communities and equity first at a time when millions of Americans are struggling to meet their basic living expenses and the economic downturn resulting from the COVID-19 pandemic has created a sea of disruption. These recommendations recognize the legacy of political, economic, and social challenges that have confronted so many frontline communities and communities of color for generations. At the same time, they can drive sustainable economic development for all communities, particularly those living on the frontlines of climate change.

We look forward to working with the Biden-Harris Administration to embed the values and principles for a resilient and equitable nation into your strategies and to implementing the actions necessary to realize our shared goals.

¹ NOAA National Centers for Environmental Information (NCEI)(2021). U.S. Billion-Dollar Weather and Climate Disasters. Retrieved from <https://www.ncdc.noaa.gov/billions/>, DOI: 10.25921/stkw-7w7

Our Vision

All communities that have disproportionately carried the burden of harm from exploitation of natural resources, economic disinvestment and under-investment, and social and political disenfranchisement, will be included in the processes that inform federal decision-making, and will be prioritized in the distribution of federal support to safeguard households and communities from current and future harm in order to achieve intergenerational equity and improve social, economic, and environmental determinants and strive for prosperity.

The United States, under the leadership of the Biden-Harris Administration, will draw on its unique ingenuity, grit, and resources to build our nation's capacity to bounce forward from climate-related shocks, into a more sustainable and equitable way of life for all communities and small businesses. The nation has an important opportunity to transform extant policies that inhibit development and growth for most of the nation and invest in solutions that are regenerative and forward facing.

ABOUT RESILIENCE 21

The Resilience 21 Coalition was formed at the end of 2020 by resilience experts from across the nation who are practitioners in diverse communities, working on all aspects of resilience. We have formed together to volunteer guidance and insight from our collective experience in the field, building and promoting resilience across the nation and around the world. For more information visit www.resilience21.org or contact: info@resilience21.org

PRINCIPLES: Lead, Integrate, Accelerate

To meet the challenges of the 21st century, we must transform our methods, as well as our systems and ourselves. The following principles should guide the Biden-Harris Administration's approach to building resilient communities.

LEAD

- Inspire an ambitious and measurable executive agenda across all agencies and functions of government, and across all sectors of society.
- Have the foresight to address long-term challenges over short-term gain; be proactive rather than reactive.
- Promote anti-racism, recognize the historical role of government in furthering injustice, and institutionalize the use of an equity lens to guide all policy making efforts.
- Involve communities, particularly communities of color, Tribal and Indigenous communities, and historically underrepresented populations in decision-making processes that affect their lives.

INTEGRATE

- Create a culture of collaboration among federal, state, local, tribal, and territorial government agencies, private sector, NGOs, and stakeholders most at risk. Seek outcomes that achieve multiple goals.
- Design and implement strategies that jointly solve environmental, economic, physical, and social problems, managing risk while also working toward equitable solutions. Create positive multi-benefits across sectors and stakeholders.
- Encourage scientists in multiple agencies and organizations to co-design and implement science-based tools to mitigate climate change and adapt to multiple hazards.

ACCELERATE

- Increase funding for the development and implementation of community resilience projects with the understanding that some communities have significant underinvestment, while ensuring that agencies build capacity to deploy funds in an effective manner.
- Provide technical assistance and capacity building to the nation's most vulnerable communities to help them become more resilient.
- Encourage innovation, knowledge transfer, and sharing of lessons learned with government departments and community organizations to help with overseeing mitigation, adaptation, and recovery programs. Design flexible processes and streamline them to enable effective, expedited implementation and outcomes and the ability to improve through experience.

RECOMMENDED ACTIONS FOR THE FIRST 100 DAYS

ACTION ONE. Create leadership positions and establish the organizational structure necessary to advance change throughout the federal government.

- Appoint a Federal Chief Resilience Officer (FCRO) in the newly formed White House Office of Domestic Climate Policy that reports to the National Climate Advisor. The FCRO should be resourced and responsible for driving resilience policy and practice across federal government operations and convening Agency Chief Resilience Officers to improve coordination and policy implementation.
- Appoint Agency Chief Resilience Officers that are tasked and resourced to drive agency level actions, oversee a team of professionals focused on mitigation, adaptation, equity, and resilience, and coordinate with the FCRO as part of an overarching structure.
- The FCRO will lead and coordinate an interagency task force, which will be responsible for developing a National Strategic Resilience Work Plan that will set achievable goals and drive successful outcomes.

ACTION TWO. Establish a National Resilience Task Force to bring a community of experts into the process of designing and vetting programs, policies, and top-level issues focused on an equity-centered approach to addressing climate risk and multi-hazards.

- Establish a National Resilience Task Force to inform the National Strategic Resilience Work Plan and ensure its deployment and success. This Task Force should include practitioners from multiple sectors (private, public, civic) working to build community resilience in land use, economic activity, housing, infrastructure, and education.

- Establish subcommittees of the Task Force to review how the nation can better promote regional coordination to advance resilience at the regional level and support under-capacity communities. Consider a new initiative to foster regional collaboration across municipal governments, modeled after the Superstorm Sandy Task Force and the Federal Interagency Climate Adaptation Task Force, to make recommendations within the first 100 days of the administration and monitor and measure progress over the course of the administration.

ACTION THREE. Fortify the nation’s communities as part of the national recovery and Build Back Better initiative through strategic investments that build quality jobs, center environmental justice, and harness American innovation in clean energy and advanced technologies.

- Work with Congress to ensure that economic stimulus and recovery legislation delivers incentives, technical assistance, and funding to states, local governments, tribes, and territories, and attracts private investment, to rebuild local and regional economies around investments in clean and renewable energy, advanced technologies, resilient housing and infrastructure, and sustainable agricultural and natural resource practices.
- Establish a National Frontline Communities Advisory Council with representatives from diverse landscapes including Tribal and Indigenous, environmental justice, and rural communities that face existential climate threats to advise on changes needed to federal programs and practices to prioritize investments that will drive just and resilient outcomes.
- Secure workers’ right to organize a union and ensure all federally funded construction and infrastructure projects meet the highest labor standards and support the creation of good-paying, life sustaining jobs, prioritizing frontline and transitioning communities.

ACTION FOUR. Research and prepare critical infrastructure, services, and stockpiles for climate change and other emerging problems and stresses related to climate risk and public health.

- Establish an Emerging Threats Task Force with leaders from FEMA, HUD, DHS, HHS, USDA, DOT, and DOE, EPA, USACE, and other relevant departments/agencies to conduct research and ensure the readiness of critical infrastructure (e.g., power, transit, food, water, health, telecommunications) for sudden shocks stemming from multiple types of emerging threats (e.g., climate change, civil unrest, cyber-attacks, antibiotic resistance, pandemics, recessions).
- Consider the federal stockpile of food, water, seeds, fuel, PPE, durable medical equipment, antibiotics, and similar items — particularly considering the increase in manufacturing of these items abroad. Ensure all states and territories have appropriate redundancies in place and adequate stockpiles as well as operations and maintenance procedures to keep stockpile current and operational.
- Deliver sustained and skilled technical assistance and launch a national “Resilience Help Desk” to support community mitigation, adaptation, and preparedness for extreme weather and other climate impacts. Centralized resources should be available to help applicants navigate the range of federal programs, including FEMA’s Building Resilient Infrastructure and Communities Program and HUD’s CDBG-DR and CDBG-MIT programs
- Increase organizational and funding support for research and development of:
 - Resilient housing, including identifying temporary to permanent housing solutions for post-disaster recovery and affordable modular and multifamily housing solutions.
 - Preventative and adaptive treatments and treatment methods to mitigate emerging health problems born from changing climate conditions (e.g., mosquito-borne diseases, Lyme disease, novel infectious agents, heat stress related illnesses, and antibiotic resistance).

- Sustainable and resilient farming practices that help sequester carbon and increase productive and resilience (e.g., hydroponics, food production, and regenerative agriculture).
- Resilient water infrastructure and assuring future water supplies (e.g., conservation, desalination, wastewater treatment and reuse).
- Sustainable and resilient power grids (e.g. offshore wind, decentralized grids, microgrids, grid security, and solar batteries).
- Energy efficiency, storage, and passive habitability strategies to reduce energy consumption and enable sheltering in place during power interruptions.
- Innovative building materials, design, and landscape planning to mitigate urban and extreme heat.

ACTION FIVE. Update and expand the “Guiding Principles for Federal Buildings,” and establish minimum requirements for federally-supported buildings and infrastructure that advance resilience, sustainability, and social and climate justice.

- Update and expand the “Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings (Guiding Principles)” MOU to include all federal agencies and cover all federal government occupied buildings including owned and leased facilities. All federal buildings should be required to meet or exceed the latest model building codes (ICC 2021) as well as energy codes, and except where proven infeasible or cost-ineffective over the lifecycle, all new buildings should be required to be zero carbon. The Guiding Principles should include requirements that go beyond minimum (ICC 2021) standards to achieve greater energy efficiency, functional recovery and immediate occupancy, and fortification and adaptability based on specific climate and human-caused threats.
- Establish minimum resilience design standards for federally supported buildings and infrastructure to incorporate resilience to flood, wildfire, and extreme winds. Without such requirements, the resilience of federal investments in communities will rely on local requirements which can vary widely. Minimum design, construction, and operation

requirements will increase health and safety for people, assure taxpayer dollars are used cost effectively and reduce the need for federal reinvestment post-disaster.

- Align the GSA's Facilities Standards for the Public Buildings Service with the above recommendations to include multi-hazard adaptation and mitigation design, construction, and operation standards.
- Fully implement HUD's stalled policies requiring the consideration of resilience, sustainability, social and climate justice, and fair housing in the CDBG Consolidated Planning processes.
- Ensure that all potentially affected stakeholders, especially frontline and environmental justice communities, are involved in the siting, design, and development of federally funded projects.
- Rescind E.O. 13807 that revoked E.O. 13690 "Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input," and direct agencies to update their rules and procedures to implement updated flood standards.

ACTION SIX. Develop a contemporary decision-making framework for federal investments and further update NEPA environmental review processes.

- Reverse the Trump Administration policy on ignoring climate impacts in NEPA reviews and update decision-making frameworks for approving federally funded building and infrastructure projects; evaluating design alternatives for federal buildings, infrastructure, and programs; and allocating federal program funding. Specify when and how to: use long-term, triple-bottom-line cost-benefit analyses; use lifecycle cost assessments; identify stakeholder interests; understand social equity impacts; assess non-monetary benefits; assess negative externalities; and consider criticality, dependencies, permanence, and risks. The framework should leverage tools like the enhanced U.S. Climate Resilience Toolkit and its underlying National Hazard Index, FEMA's National Risk Index, and EPA's EJ Screen tool described in recommendation 10.

- Across agencies, environmental reviews for federally funded projects should include consideration of a development's immediate impact on the natural environment, human health, and social equity; its long-term cost-benefits; and its long-term contribution and vulnerability to the increasing natural hazards presented by climate change. All applicable federal agencies should update their environmental review policies to reflect this and, if necessary, NEPA should be updated to support this practice. Make every effort to ensure transparency, consistency, and efficiency in environmental reviews despite these expanded considerations. Consider rolling out changes as part of a cross-government alignment of environmental review protocols; a launch of a single, user-friendly, federal environmental review portal; a launch of a newly updated Environmental Justice Screening (EJ Screen) tool; and the expansion of the National Risk Index, which would be used when preparing and conducting the reviews.
- Direct agencies to identify opportunities to work with local leaders and community organizations to plan for locally-designed and advised migration and community fortification efforts, while promoting and protecting the agency of low- and moderate-income families so that they may make fair, just, and livelihood-enhancing decisions about their futures.
- Utilize resident-informed policymaking, human/community-centered design methods to build consensus around the values and priorities that will guide federal involvement and investment in addressing climate and social justice.
- Reinforce the right of Free, Prior, and Informed Consent for Native, Tribal, and Indigenous communities (Native American, Alaskan Native and Native Hawaiian) in all review and consideration of existing or potential threats, reinforcing sovereignty and self-determination.

ACTION SEVEN. Create a "Future Visioning" Task Force to address communities threatened by climate and human-caused displacement including sea level rise, wildfire, riverine and coastal flooding, environmental degradation and pollution, civil unrest, etc. This task force must support free will and mobility of communities to determine their own futures and have enough funding for support and proactive action. Considerations must include local,

regional, and global-reaching influences on American communities broadly: Identify and provide technical and funding support to receiving communities to help them prepare for significant population and demographic changes, to ensure housing stock, infrastructure, and community services are in place in addition to support networks and services. When affordable housing is to be relocated after consultation, build the receiving properties before demolishing the old and ensure that the total amount of affordable housing available to a population remains stable or increases. Provide temporary federal support for critical infrastructure during retreat transition while discouraging additional development. Provide temporary federal support to local governments during retreat transition for lost tax base.

- Instruct the task force to identify the geographic areas that are planning for or are at risk of displacement. Characterize the impacted demographics, property values, land ownership and other factors, especially those affecting indigenous communities, environmentally degraded or vulnerable communities and highest threat locations.
- Utilize resident-informed policymaking, human/community-centered design methods to build consensus around the values and priorities that will guide federal involvement and investment in addressing climate and social justice.
- Direct agencies to identify opportunities to work with local leaders and community organizations to plan for locally-designed and advised migration and community fortification efforts, while promoting and protecting the agency of low- and moderate-income families so that they may make fair, just, and livelihood-enhancing decisions about their futures.
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- Reinforce the right of Free, Prior, and Informed Consent for Native, Tribal, and Indigenous communities (Native American, Alaskan Native and Native Hawaiian) in all review and consideration of existing or potential threats, reinforcing sovereignty and self-determination.

ACTION EIGHT. Create a Resilience Finance Committee to develop and support innovative financing and investment tools, funds, and incentives for a range of funders and investors by drawing upon private and public investment to support and accelerate programmatic, technical, and physical upgrades. Develop a multi-pronged resilience approach to be directed through the U.S. Treasury CDFI Fund that fundamentally changes the market approach to resilience adoption in the broader community development finance and impact investing arena.

- Establish an Office of “P4” Public Private People Partnerships to promote and enhance opportunities for private investment in projects to advance carbon mitigation, community resilience, and sustainability, including opportunities to blend public funds and private capital.
- Develop a multi-pronged resilience approach to be directed through the US Treasury CDFI Fund that fundamentally changes the market approach to resilience adoption in the broader community development finance and impact investing arena.
- Increase scale and the diversity of debt/equity/credit products for resilience projects for local and state communities. Double down on increased specialized revolving loan funds for resilience and adaptation in different public and infrastructure sectors.
- Promote financial investment into vulnerable low- and moderate-income communities by partnering with the Federal Reserve to train a network of CDFIs, lenders and Investors on how to invest in and screen investments to secure and safeguard communities prioritized by CRA goals and objectives.
- Establish a price on carbon to slow climate change and accrue the funds necessary to address the damages caused by climate change.

- Establish a National Green Bank -- a nonprofit organization tasked with providing subsidy, grants, and loans, to support a wide range of multi-benefit projects aimed to improve environmental sustainability, disaster preparedness, climate adaptation, public health, and social equity. Ensure that the National Green Bank does not limit its scope to energy-efficiency projects in high-income areas but prioritizes the needs of vulnerable communities and provides offerings for projects that are often overlooked.
- Direct the Office of Management and Budget (OMB) to coordinate on information materials needed to apply to multiple grant and subsidy programs to ease administrative burden on applicants and grantees.
- Develop a dashboard of state resilience, mitigation, and adaptation programs to be modeled on the DSIRE Database so that state and local governments can access up-to-date information on programs resilience efforts.

ACTION NINE. Expand and align successful federal programs to accelerate holistic mitigation and adaptation improvements in homes, buildings, and infrastructure.

- Convert and expand the Weatherization Assistance Program (WAP) into a comprehensive, multi-benefit building retrofit program that prioritizes all low- and moderate-income households including single family and multifamily. Through a multi-agency partnership between DOE, HUD, FEMA, USDA, EPA, and HHS, combine the WAP and the Low-Income Home Energy Assistance Program (LIHEAP) into a significantly expanded multi-benefit building retrofit program aimed at low- and moderate-income homeowners, small multifamily housing providers, affordable housing providers, and small businesses. Expand the program offerings to permit a wide range of home and building improvement measures that promote housing affordability, environmental sustainability, resilience, preparedness, public health, and social equity.
- Expand National Earthquake Hazards Reduction Program (NEHRP) and the National Windstorm Impact Reduction Program (NWIRP) and establish well-funded interagency programs that are tasked with enabling knowledge development and technology transfer in other natural hazard areas critical to the nation, such as fire.

- Expand and regularly update the U.S. Climate Resilience Toolkit to include an official, investment-grade, fully comprehensive, forward-looking set of GIS dashboards and tabular datasets that provide national- to site-level detail on a full range of natural hazards and the impacted demographics and physical assets. Integrate NOAA's Climate Explorer maps, Drought.gov, FEMA's National Risk Index, EPA's EJ Screen tool, and DOE's Renewable Energy Maps. Enable users to add layers and conduct analyses related to their jurisdictions, constituencies, and properties as well as incorporate data for use in other tools freely without need for legal approval. Federal agencies, local governments, nonprofits, corporations, academics, and consumers can then use these tools to support research, policymaking, investing, and other decisions.
- Direct all federal agencies to update their 2014 Climate Adaptation Plans and utilize the enhanced U.S. Climate Resilience Toolkit and other sources to assess the vulnerability of their constituents and assets and assess how natural hazards will affect their mission and critical paths. Direct federal agencies to adjust their programs, policies, and investments as appropriate, and with the values of long-term cost-effectiveness, environmental sustainability, and social equity in mind.

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