U.S. Framework for Climate Resilience and Security

The Climate and Security Nexus

The climate crisis poses existential threats to American lives and interests, and to the safety and livelihoods of people around the world. Without immediate global action to reduce emissions, the world could soon exceed 1.5 degrees Celsius of average warming, further increasing extreme heat and weather, rising sea levels, disruption to health, food, and water systems, and catastrophic biodiversity loss. In 2023, the world experienced more than $287 billion dollars in estimated lost revenue and damages due to climate change and severe weather impacts. These losses are only projected to worsen in intensity, frequency, and scope. Without urgent and sustained investment in adaptation and resilience, human security will be threatened as these impacts erode political, military, economic, environmental, and social stability.

Taken together, these direct and indirect impacts have potentially profound implications for U.S. national security interests. Populations already at risk, including Tribal and Indigenous communities around the world, are more vulnerable to the political, economic, and social impacts of climate change, which, in turn, could cause the displacement of people, both within and across borders. As communities move in search of better living conditions, it is likely that increased patterns of migration will cause significant stress to existing immigration systems for origin, transit, and destination countries. The Biden-Harris Administration has made ensuring the stability of nations and the resilience of communities, at home and abroad, a critical priority for national security and foreign policy.

In the 2022 National Security Strategy, the Biden-Harris Administration emphasizes that climate change is the greatest and most existential of shared problems facing humanity. Likewise, the U.S. Intelligence Community, in its 2021 National Intelligence Estimate, details how the deepening impacts of the climate crisis are intensifying conflict and the drivers of instability, as well as increasing fragility, eroding development gains, exacerbating recurrent humanitarian crises, and stressing societal inequities globally. Similarly, U.S. departments and agencies, including the Department of Defense (DOD), the Department of Homeland Security (DHS), the Department of State, the U.S. Agency for International Development (USAID), the U.S. Coast Guard (USCG), the National Oceanic and Atmospheric Administration (NOAA), the National Aeronautics and Space Administration (NASA), and other departments and agencies have warned that climate change presents acute and systemic threats by exacerbating instability, destabilizing international systems and relations, threatening installations and readiness, and heightening demands for disaster response and security assistance.

In light of these challenges, there is a clear need for leadership as well as clear benefits to taking on a leadership role. It is imperative to collaborate and coordinate across the U.S. Government and with partners and allies. By leveraging our expertise and

resources, we can manage the worst and reduce future impacts of climate change while also strengthening global security and stability.

Partners and global allies are increasingly seeking partnerships to provide guidance and support to respond to the mounting implications of climate change. Through the creation of this framework, the United States seeks to work through those partnerships to advance U.S. security interests, manage strategic competition, and enhance partner and regional stability abroad. While the anticipated social, health, and economic damages from climate change are significant, investing in resilience, mitigation, and adaptation prior to heatwaves, floods, drought, or other climate shocks and their after-effects is significantly more cost effective, saves lives, livelihoods, and prevents resource- and disaster-related conflict both at home and abroad.

A Whole-of-Government Approach

Planning for effective and coordinated execution across the diplomatic, development, defense, humanitarian, and scientific domains will be essential to ensuring the success of our investments at home and abroad. As humanitarian needs reach record levels, and crises become more complex and protracted, our humanitarian, development, and security sectors could be overwhelmed by cascading climate impacts. To avoid the most destabilizing impacts of climate change and break cycles of crisis, our approach to climate resilience and security must leverage the comparative advantages of our diplomatic, defense, peacebuilding, humanitarian, scientific, and development capacities to address human security. Having an accurate and comprehensive understanding of how, when, and where climate will lead to destabilizing disruptions requires sustained investments in observations (in situ and remote) and modeling, as well as collaboration between the scientific and security communities on analysis and assessments of risks and vulnerabilities and planning and implementation of adaptation measures.

Strengthened interagency and international cooperation on climate change reinforces the U.S. position as the preferred partner by showcasing our commitment to share and synchronize the top scientific expertise, and strengthen capacities in climate change mitigation and adaptation. This cooperation encourages the United States and allies to approach diverse climate risks in ways that are complementary and reinforcing – ranging from the conduct of our diplomacy, to the safeguarding of our energy sources and supply chains, to the acquisition and adaptation of facilities, technologies, and resources that enable our personnel to operate in rapidly changing environments. This framework represents a consolidated approach to inform U.S. departments and agencies as they develop specific programs that address security impacts of the climate crisis manifesting across various geographies, sectors, and thematic areas.

The goal underpinning this U.S. Framework for Climate Resilience and Security is to strengthen the stability of nations and the resilience of communities, at home and abroad, in the face of a changing climate. This means avoiding devastating socio-economic and health impacts while supporting sustained economic prosperity. By

investing in climate resilience, we can reduce the number of people in need of international humanitarian assistance, lower financial costs, better equip communities to address the impacts of climate change on irregular migration, create meaningful jobs, contribute to security and stability, further environmental justice, and ultimately advance U.S. interests and global leadership. Every $1 invested in climate adaptation, yields $2 to $13 in economic benefits. Moreover, resilience pays dividends in non-economic and more intangible ways. For example, governments and institutions that are not forced to deal with iterative crises can focus on initiatives that promote health and wellbeing, advance sustainable development, and foster peace and security.

This framework reinforces and is complementary to the President's Emergency Plan for Adaptation and Resilience (PREPARE). This document identifies priority actions to address the security implications of a changing climate; these priority areas cut across the U.S.'s domestic climate resilience efforts, which are outlined in greater detail in the 2023 National Climate Resilience Framework and U.S. international climate resilience and security priorities. Additionally, this framework builds upon strategies, directives, and policies on key issues and geographies previously issued by the Biden-Harris Administration (see Annex A) and offers a targeted opportunity to integrate climate security into the programs of departments and agencies.

A U.S. Framework for Climate Resilience and Security

Mapping Climate Security Threats

Climate change exacerbates risks to U.S. national security interests as physical impacts increase and geopolitical tensions mount, and governments determine how to respond to the challenges. These threats are likely to manifest in the near term (today), medium term (by 2030), and long term (by 2040 and beyond) across three areas of risk to national and global security interests: (1) climate effects driving country-level instability; (2) climate-exacerbated geopolitical flashpoints; and (3) geopolitical tensions over climate responses.

Adapted from the 2021 National Intelligence Estimate, the table below outlines non-exhaustive examples of cascading risks associated with climate security.

Climate effects impacting country-level instability	**Climate-exacerbated geopolitical flashpoints**	**Geopolitical tensions over climate responses**
Negative consequences to: - Energy systems and prices - Food systems and prices - Drivers of conflict - Water resources and infrastructure - Health systems and security - Public health impacts - Land degradation and desertification	Tensions and competition over: - Transboundary water resources and management - Migrating food sources - Irregular cross-border migration and forced displacement - Disease management and transmission - Marine resources and fisheries - Shipping routes	Contention over: - Critical minerals - Clean energy technologies and supply chains - Natural resources - Financing and assistance - Greenhouse gas emissions and removals - Fossil fuel interests - National contributions - Response to cross-boundary or regional natural disasters

- Military and security force readiness and infrastructure - Women's and girls' health, safety, education, and economic security - Humanitarian assistance - Instability and conflict - Internal displacement and cross-border migration - Transportation infrastructure - Economic systems and livelihoods - Disaster and emergency preparedness, response and recovery - Safe and affordable housing - Ecosystem degradation and species extinction - Damage of cultural and heritage resources - Effective governance	- Pollution and carbon management - Industrial espionage - Intellectual property disputes	- Trade rules - Implementation of geoengineering - Immigration and refugee status, management and governance

For countries and communities with less capacity to adapt to the effects of a rapidly changing climate, these impacts can increase the potential for instability and conflict, creating additional demands on U.S. diplomatic, economic, humanitarian, public safety, security, and military resources. Global environmental changes are also projected to increase strategic competition between states over limited resources. These intersecting issues represent initial priority areas for shared cooperation among U.S. departments and agencies as well as bilateral actors and multilateral institutions.

Prioritizing Climate Security Solutions

To confront these three growing areas of risk, and to build resilience at home and abroad to the security impacts of changing climate, activities should be prioritized along three areas of action:

1. **Assess** the Potential Impacts of Climate-Related Security Threats;
2. **Partner** for an Integrated Approach; and
3. **Invest** in Collective Resilience.

Action I: Assess the Potential Impacts of Climate-Related Security Threats and Opportunities

The first step in ensuring more climate-resilient security is to aggregate, enhance, and share data assessments and analyses. These types of assessments and analyses require robust and sustained observing and monitoring systems, as well as analytic and modeling capacity to develop climate forecasts, warnings, projections, and scenarios. Current and future research overseen and conducted by departments and agencies,

including science agencies and the U.S. national laboratories, requires integration with the outside analytic efforts of allies and partners, the global academic community, international organizations, think tanks, and the private sector. These insights into projecting and mapping climate vulnerabilities to security will enable the U.S. Government and our partners to better comprehend their respective implications across different spatial and temporal dimensions. Assessments should include periodic analyses and monitoring of change in environmental conditions (e.g., temperature, precipitation, storms, sea level, air, land, water, and other ecosystem impacts, etc.) and forecasting projected security impacts. Assessments and analyses should consider multiple scenarios and use peer-reviewed scientific documents, including the National Climate Assessment as well as those from the Intergovernmental Panel on Climate Change. Where feasible, these assessments should also consider local, social, economic, and political developments, as well as key economic and geopolitical interdependencies.

The U.S. Government has already advanced analyses of how these risks intersect with U.S interests and security priorities. However, more coordination of such analyses and research is needed to inform future plans, programs, and strategies to the variable and cascading impacts of the climate crisis. The accelerated production of climate security analyses will rely on the extensive data, scientific expertise, coordination, and communication of analytical capabilities available across the U.S. Government. This will facilitate enhanced monitoring of conditions, forecasting of related environmental, social, health, and economic trends worldwide, and validation through insights provided by the intelligence and security community. These assessments will be critical tools in informing or advancing diplomatic, development, and defense strategies and interventions. Departments and agencies should work to integrate and use such analyses in order to inform programmatic priorities relating to climate security.

For example, USAID's Famine Early Warning Systems Network (FEWS NET) provides timely, accurate, and evidence-based early warning of acute food insecurity in the world's most food-insecure countries. FEWS NET uses scenario development to integrate an array of data streams, including those pertaining to conflict, climate, and economic shocks, to forecast acute food insecurity eight months into the future. These analyses inform USAID's distribution of billions of dollars of humanitarian food assistance each year, ensuring that life-saving resources are allocated to those in greatest need. They also support the information needs of analysts and decision makers across the interagency and broader international community. A foundational component of the FEWS NET program rests on the strength of its interagency collaboration with the National Aeronautics and Space Administration, the National Oceanic and Atmospheric Administration, and the U.S. Geological Survey, which produces the cutting-edge climate science and agroclimatology that undergirds FEWS NET analyses. Investments in similar programs will be critical to inform the development of climate resilience and security. Additionally, the DOD-supported Pacific Disaster Center's platform, DisasterAWARE/RAPIDs, provides global near-real-time hazard notification, automated risk and exposure analysis, and easy access to visualize

thousands of relevant data layers and situation reports to partners and the U.S. Government.

Action II: Partner for an Integrated Approach

Global interdependencies underscore the imperative for bilateral and multilateral cooperation in addressing climate security threats. A climate change-related event in one country can have far-reaching economic, social, health, security and geopolitical impacts on surrounding regions and the global system. While the United States possesses unique capabilities to respond to these events, effective solutions require cooperation and collaboration with allies and partners. Identifying and aligning common priorities, particularly with highly vulnerable countries, and preparedness for these priority impacts, or cascading impacts upon the United States and its territories, will both advance our global and national security as well as safeguard broader U.S. interests in the context of global strategic competition.

Departments and agencies should work to integrate climate and environmental risks, such as those outlined in the table above, within existing programs and partnerships both within their own domains while also coordinating across interdependent sectors and through interagency coordination mechanisms, such as through the Climate Security Working Group, or the U.S. Global Change Research Program's Working Group on National Security. These efforts should also target defense, conflict prevention, stabilization, development, natural disaster and humanitarian response, peacebuilding, and related activities that the United States undertakes, both domestically and globally. Departments and agencies should also further incorporate conflict-sensitive approaches to interventions in fragile and conflict-affected states to reinforce social cohesion and avoid aggravating existing grievances. Policymakers should foster opportunities to partner among the U.S. Federal departments and agencies, and with partners in other countries, international organizations, the private sector, and global civil society. This can be achieved through integrating the priority areas of risk into existing strategic diplomatic and defense dialogues and other initiatives, identifying critical geographic areas for new and dedicated efforts, and advancing diplomatic initiatives aimed at elevating climate security topics in international organizations and integrating climate security topics into pre-existing security dialogues.

Partnerships between the United States and other countries' security services are also critical pathways to bolster the ability of our partner countries to respond to growing climate shocks. Through dedicated training and education programs, we can equip our partners with the resources they need to respond to new climate change induced-crises, before we're called upon to assist with a disaster situation.

For example, in response to the climate crisis, PREPARE supports developing countries and communities in vulnerable situations around the world in their efforts to adapt to and manage the impacts of climate change. PREPARE activates a coordinated, whole-of-government approach and serves to coordinate over 20 Federal departments and agencies to ensure that countries are better prepared for and are able to respond to the

ways that climate change undermines food, water, and economic security, and to the secondary effects of climate change that facilitates displacement, loss of livelihoods, weakened governments, and in certain cases, political instability and conflict. Additionally, the Global Fragility Act (GFA) and associated U.S. Strategy to Prevent Conflict and Promote Stability (SPCPS) is a long-term, cross-cutting initiative to redefine how the United States addresses the drivers of fragility, prevents violence, and advances stability in areas vulnerable to conflict. The SPCPS outlines a U.S. whole-of-government approach designed to foster and achieve better long-term outcomes through integrated diplomacy, development, and security-sector engagement. It emphasizes an interagency approach, multi-stakeholder consultations, and strategic integration with critical overlapping legislative and policy priorities. Addressing climate crisis-induced risks is a core feature of the SPCPS, with 10-year country plans including considerations of direct and indirect climate hazards, key vulnerabilities, and how these dynamics may further drive instability or conflict. The SPCPS also considers the benefits of addressing climate impacts and taking adaptation actions in efforts to build long-term peace and security.

Action III: Invest in Collective Resilience

Supporting resilience, in particular in fragile and conflict-affected states, requires creative approaches to manage, allocate, and scale resources, including by ensuring climate finance addresses the drivers of conflict. Mobilizing the necessary financing to meet the challenges ahead demands the combined resources, coordination, and expertise of both the public and private sectors. Partnerships that facilitate innovation, leverage evolving technologies, and drive investment towards climate-resilient solutions, thereby enhance the collective ability to help prevent and adapt to climate-related security risks. Strategic investments in enhanced global ocean and atmospheric observations, climate data sharing, and management and predictive capabilities are critical for enabling risk assessment and catalyzing action. Partnerships leveraging local, Tribal, and Indigenous knowledge and expertise, as well as efforts related to the co-development of resilience solutions, will allow for investment in collective resilience.

The goal of reducing violence around resource competition and increasing investment in collective resilience cannot be met without greater climate investment in fragile and conflict-affected states. According to the World Bank, over half of the 25 countries classified as fragile or conflict-affected are among the most vulnerable to climate change, yet these states remain largely excluded from climate finance opportunities, from both public and private sources. The United Nations Development Program, in recent years, emphasizes that extremely fragile and conflict-affected settings averaged over $2 per person in climate adaptation financing received compared to $161 per person for non-fragile settings. It is imperative to continue to leverage new and existing ways of working together, including with multilateral development banks, vertical climate funds, the public and private sectors, civil society, philanthropic foundations, and other national and sub-national governance and financial institutions to increase the accessibility to climate finance and climate risk reduction finance as a critical tool to address conflict and promote resilience in these challenging contexts.

By fostering the integration of climate security into public-private partnerships among governments, international organizations, philanthropic organizations, the private sector, and civil society, we can promote more robust adaptive, innovative, and effective responses to the complex challenges posed by climate change. For example, the Defense Operational Resilience International Cooperation pilot program enables engagements with allied and partner national security forces to help them plan for, respond to, and adapt to a range of shared defense-related climate, environmental, and energy-related challenges.

Implementation

To implement the priorities and activities addressed in this Framework, U.S. departments and agencies are requested to conduct the following activities.

Develop Department and Agency Climate Security Implementation Plans

Departments and agencies that engage in extensive international work, national security policy, and/or international scientific and climate related research should develop implementation plans specific to climate security, as appropriate and consistent with applicable law, and submit to the Assistant to the President for National Security Affairs, within 90 days of publication of this framework. These plans must articulate department or agency assessment of climate security risks, prioritization of risks to be addressed, countries and regions of focus, and existing collaboration with other departments or agencies. The plans should also identify concrete measures and programs to strengthen and increase coordination with interagency partners on shared priorities and articulate what can be achieved within existing capacity and resources. The National Security Council (NSC) staff will convene departments and agencies within 30 days after initial submission of implementation plans, to coordinate and further prioritize efforts across the U.S. Government.

Integrate Climate Security into Strategies and Programs

Utilizing the framework, departments and agencies should consider the implications of climate change to national security by continuing to incorporate climate security into relevant strategy, planning, and programming documents and processes, including but not limited to Country Development Cooperation Strategy (USAID), Integrated Country Strategies (State), and Combatant Command Theater Strategies and Campaign Plans (DOD).

Expand Climate Security Education and Training Resources

Science agencies should work with other departments and agencies to build knowledge and promote an advanced understanding of climate security within their workforces. Developing these core competencies and partnerships will be essential to the literacy of

the national security and foreign affairs workforce. Departments and agencies should integrate climate considerations into existing education and training programs, where practical, to save personnel time, maximize resources, and demonstrate how climate connects to other mission-critical and job-specific functions. Departments and agencies should also utilize scenario planning exercises and as appropriate, wargames to ensure their workforce understands current and future climate change impacts upon respective missions.

Prioritize Investments to Increase Climate Resilience and National Security

Departments and agencies should consider how, and to what extent, foreign assistance, including security assistance, partners' military funding, and security cooperation activities can be leveraged to help partners combat climate change-induced or exacerbated insecurity, reduce greenhouse gas emissions, and prepare for, mitigate, and adapt to the impacts of climate change. Important actions could include increasing use of clean energy, supporting sectoral infrastructure and systematic transformation, building climate security knowledge, bolstering ability to prepare for and respond to increasing and intensifying disasters, strengthening surveillance and response to vector borne diseases, reducing conflict over natural resource scarcity, and promoting conservation, restoration, and protection of terrestrial, freshwater, and marine ecosystems that enhance resilience and support mitigation.

Work with International Partners and Institutions

The U.S. Government should convene allies, partners, likeminded states, as well as public-private institutions to jointly advance analysis and strategic approaches to building resilience to climate security threats. This includes incorporating climate security considerations into bilateral and multilateral engagements and military-to-military engagements and within diplomatic convenings such as the G7, G20, and international organizations.

Analyze New and Emerging Threats

Relevant departments and agencies should continue to analyze novel and emerging instances of climate security challenges, particularly those not currently captured in existing analyses. Areas for initial and expanded consideration include: the impact of the El Niño and La Niña phenomena on climate security; the potential implications of climate tipping points; compounding and cascading events; the role and potential impact of geoengineering; and the intersection of climate security and artificial intelligence technologies.

Conclusion

The implementation of this framework, including its priority areas and actions, and its taskings for implementation will be assessed through the Interagency Policy Committee

(IPC) on climate security, led by NSC staff. The IPC will review progress on implementation of the framework annually to further prioritize actions put forth in agency plans and intelligence assessments to assure climate security integration into policies and programs, and to consider new areas for collaboration.

Together, these activities and investments will reflect the U.S. commitment to confront the global risks posed by a changing climate, and to lead global responses to help prevent and adapt to these accelerating threats. Only by working together in a whole-of-government approach, alongside scientific, security, private, and civil society stakeholders, and by building the collective resilience of our allies and other partners around the globe, can we meet the challenges already posed by climate change, as well as in the decades to come.

Annex A

This framework builds on and reaffirms actions the Administration has already taken to place the climate crisis at the forefront of this Nation's foreign policy and national security planning, including the following Presidential directives, policies, and strategies:

A. The 2021 National Intelligence Estimate on "Climate Change and International Responses Increasing Challenges to US National Security through 2024."
B. The 2021 Executive Order on Tackling the Climate Crisis at Home and Abroad and the 2016 Presidential Memorandum on Climate Change and National Security.
C. The 2021 Department of Homeland Security Strategic Framework for Addressing Climate Change.
D. The 2021 President's Emergency Plan for Adaptation and Resilience (PREPARE) and the 2022 PREPARE Action Plan.
E. The 2021 Executive Order on Rebuilding and Enhancing Programs to Resettle Refugees and Planning for the Impact of Climate Change on Migration and the 2021 Report on the Impact of Climate Change on Migration.
F. The 2022 National Security Strategy.
G. The 2022 White House Action Plan on Global Water Security and the 2022 U.S. Global Water Strategy.
H. The 2022 Executive Order to Strengthen America's Forests, Boost Wildfire Resilience, and Combat Global Deforestation; the 2022 Executive Order on Protecting Mature and Old-Growth Forests both Foreign and Domestic; the 2022 National Security Memorandum on Combating Illegal, Unreported, and Unregulated Fishing and Associated Labor Abuses; the 2023 Joint Statement on the Launch of the Nature Crime Alliance; the 2021 United States Strategy on Countering Corruption; and the 2021 Executive Order Establishing the United States Council on Transnational Organized Crime.
I. The 2022 National Defense Strategy; the 2021 Department of Defense Installation Exposure to Climate Change at Home and Abroad report; the 2021 Department of Defense Climate Adaptation Plan; the 2021 Department of Defense Climate Risk Analysis; the 2022 United States Department of the Army Climate Strategy; the Department of the Navy Climate Action 2030 plan; the 2022 Department of the Air Force Climate Action Plan; the 2023 Department of the Air Force Climate Campaign Plan; the 2023 Department of Defense Plan to Reduce GHG Emissions; and the 2023 DoD Operational Energy Strategy.
J. The 2022 National Strategy for the Arctic Region and its 2023 Implementation Plan.
K. The 2022 Prologue to the United States Strategy to Prevent Conflict and Promote Stability.
L. The 2022 Indo-Pacific Strategy of the United States; the 2022 Pacific Partnership Strategy; the 2022 U.S. Strategy Toward Sub-Sharan Africa; the 2022 U.S.-Caribbean Partnership to Address the Climate Crisis 2030; and the Americas Partnership for Economic Prosperity.

M. The 2022 Roadmap for Global Food Security; the 2022 White House National Strategy on Hunger, Nutrition, and Health; and the 2021 Agriculture Innovation Mission for Climate.
N. The 2022 Opportunities to Accelerate Nature-Based Solutions: A Roadmap for Climate Progress, Thriving Nature, Equity, & Prosperity
O. The 2023 National Climate Resilience Framework.
P. The 2023 Fifth National Climate Assessment.
Q. The 2023 Executive Order on Revitalizing Our Nation's Commitment to Environmental Justice for All.
R. The 2023 U.S. Women, Peace, and Security Strategy and the 2023 U.S. Strategy to Respond to the Effects of Climate Change on Women.
S. The 2023 Climate and Health Strategic Framework and the 2022 Biodefense Strategy and Implementation Plan.
T. The National Resilience Strategy (forthcoming).