U.S. DEPARTMENT *of* STATE

Climate Adaptation & Resilience Plan 2024-2027

Climate Adaptation & Resilience Plan

2024-2027

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It is the policy of my Administration that climate considerations shall be an essential element of United States foreign policy and national security. The United States will work with other countries and partners, both bilaterally and multilaterally, to put the world on a sustainable climate pathway. The United States will also move quickly to build resilience, both at home and abroad, against the impacts of climate change that are already manifest and will continue to intensify according to current trajectories.

Joseph R. Biden

President

United States of America

Executive Order 14008

A Letter from the Secretary of State

U.S. DEPARTMENT *of* STATE

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Climate change presents an existential threat to people and our planet. It imperils our ability to fulfill our organizational mission in profound ways. The Department already sees flooding, wildfires, and extreme weather sever critical communication lines, damage embassies, put the health and safety of our personnel at risk, destabilize societies, and limit aid distribution.

The importance and impacts of climate change are why President Biden directed the U.S. government and the Department of State to place this crisis at the center of our foreign policy and national security. Congress has similarly mandated that agencies prepare for the increasing frequency of natural disasters. I am privileged to lead this unique organization, which has dual leadership roles to play in the global fight against climate change. We collaborate with partners around the world to increase the pace and scale of action to reduce carbon emissions while helping countries prepare for the worst climate impacts. Simultaneously, we're committed to leading by example through reducing our own carbon emissions and integrating climate risks into how we make decisions both now and into the future.

While we have a lot of work ahead to transform our organization, I am proud that this Plan represents the most comprehensive climate risk strategy the Department has ever done. It is the result of extensive data analysis projecting climate risks for every one of our global locations. We owe immense gratitude to our partners across the interagency, from other governments, and academia who contributed to this data effort.

Lastly, I thank the employees of the Department who consistently go above and beyond to fulfill our mission despite challenges. Special recognition is due to the many members of the cross-functional Climate Resilience Working Group who have been working since 2021 under the direction of the Chief Sustainability Officer to coordinate and discuss adaptation efforts and the Bureau of Overseas Buildings Operations' Climate Security and Resilience program for paving the way on data.

This plan is applicable to all domestic and overseas operations. It will endure until amended, superseded, or revoked.

Together, let us confront the climate crisis with resolve and unity, knowing that our collective efforts are essential for a safer, more resilient future.

Antony J. Blinken
Secretary of State
U.S. Department of State

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Section 1: Agency Profile

Mission	**To protect and promote U.S. security, prosperity, and democratic values and shape an international environment in which all Americans can thrive.**
Agency Climate Adaptation Official	Caroline D'Angelo, Deputy Chief Sustainability Officer
Agency Risk Officer	State's enterprise risk management is overseen by the Department's Enterprise Risk Management Council (see Foreign Affairs Manual for more information)
Point of Public Contact for Environmental Justice	Allison Waters, Bureau of Oceans and International Environmental and Scientific Affairs
Domestic	101 buildings/structures in the Department's custody and control: 5,157,048 square feet. (Master Reference Data (MRD) Report, October 2023) 71 buildings/structures leased by the Department from commercial or other non-federal entities: 3,638,625 square feet. (MRD Report, October 2023) 44 buildings/structures occupied by the Department and owned by GSA or another non-State agency: 3,593,275 square feet. (MRD Report, October 2023)

	168 locations where the Department has a limited personnel presence on another entity's facility and no administrative authority. Square footage is not tracked at these locations. (MRD Report, October 2023)
Overseas	Owned Buildings: 10,106 owned buildings: 84,576,821 square feet (Federal Real Property Profile (FRPP) FY 2023) Leased Buildings: 14,496 buildings: 40,738,452 square feet (Federal Real Property Profile (FRPP) FY 2023)
Employees	Domestic U.S. Direct Hires: 17,053 (Bureau of Global Talent Management (GTM) Factsheet, December 2023) Overseas U.S. Direct Hires: 9,168 (GTM Factsheet, December 2023) Locally Employed Staff: 50,422 (GTM Factsheet, December 2023) Contractors: N/A; The Department does not centrally track this.
Budget	$47.1 Billion - FY22 Enacted Div. K, P.L. 117-103 $45.4 Billion - FY23 Enacted Div. K, P.L. 117-328

	$45.1 Billion - FY24 Enacted Div. F, P.L. 118-47 FY25 International Affairs Budget – United States Department of State
Key Areas of Climate Adaptation Effort	Current: Facilities, Supply Chain, Emergency Preparedness and Management, President's Emergency Plan for Adaptation and Resilience (PREPARE). Future: Foreign Assistance and Programing

Summary Statement

Climate change threatens the State Department's ability to deliver on its mission. The Department already sees flooding, wildfires, and extreme weather sever critical communication lines, damage embassies, put the health and safety of our personnel at risk, destabilize societies, and limit aid distribution. Without an actionable, enterprise-wide strategy to address climate risks, the Department could experience short- and long-term local and regional disruptions similar to what happened during the COVID-19 pandemic. Through this Plan, the Department is taking several notable measures, including assessing the impacts of climate change on its mission and exposure to its facilities and personnel to climate and other natural hazard, and identifying initial steps to ensure that the Department can continue to advance American foreign policy and be resilient to 21st century challenges.

Even under the most conservative emissions scenarios, the Department can expect nearly two thirds of its overseas facilities and 90% of personnel to be exposed to extreme heat events and one third of facilities to be impacted by some kind of flooding by the middle of the century. Domestically, almost all the Department's facilities will experience increased extreme heat and precipitation events, and by the end of the century, our operations in Charleston will likely be under water.

President Biden directed the U.S. government and the Department of State to place the climate crisis at the center of our foreign policy and national security and lead by example through decarbonizing our operations and preparing for climate impacts. This requires an all-of-Department response. The Department is hard at work to mobilize global action and transform how climate risk is managed across the agency, but there is still much to do.

The 2024-2027 Climate Adaptation Plan was developed across the Department in alignment with the Disaster Resilience Planning Act, Executive Order 14008, Executive Order 14057, and the President's Emergency Plan for Adaptation and Resilience (PREPARE). Our goals are:

1. **Protect** U.S. personnel globally and American citizens abroad;

2. **Ensure** the continuity of mission critical services;
3. **Avoid** financial risks to protect taxpayer dollars;
4. **Equip** staff with the knowledge and tools they need; and
5. **Lead** by example through development and implementation of sustainable and resilient best practices.

To achieve these goals, the Department has created an inventory of global climate risks for our diplomatic mission functions. Our next steps include:

- **Climate Risk Inventory:** Continue to identify, assess, and monitor global threats.
- **Decision-Making Makeover:** Integrate climate risks into all strategic planning and budget processes.
- **Risk and Climate-Smart Workforce**: Develop a training and human capital plan to identify priority needs for additional staff, resources, and training.
- **Resilient Operations:** Embed climate risk mitigation into everyday procedures, from emergency management to host country engagement.
- **Track Progress:** Monitor performance and adapt the plan as needed.

This plan is applicable to all domestic and overseas operations. It is effective immediately and will remain so until amended, superseded, or revoked.

Section 2: Risk Assessment

The Department assessed the exposure of its buildings; employees; and lands, waters, and cultural and natural resources to five climate hazards: extreme heat, extreme precipitation, sea level rise, flooding, and wildfire risk. Additionally, the Department assessed risk to its overseas buildings and employees to other natural and climate hazards, including tsunami, extreme wind, water stress, earthquakes, and volcanos.

The Department modified the White House-provided Federal Climate Mapping for Resilience and Adaptation Action using internal real property data to screen all domestic properties[1]. For overseas diplomatic mission locations, the Bureau of Overseas Buildings Operations (OBO) maintains a separate screening tool that overlays global natural hazard exposure information with our real property locations (see datasets and hazards considered for overseas facilities in Appendix B). The resulting screening assessments will enable continued climate hazard evaluations. Maps and further information are available in the appendices.

Risk for Agency Domestic Facilities:

The Department of State occupies 384 properties in the United States, Puerto Rico, and Guam. The majority (238) of these properties are leased, 89 are owned by the Department, and 57 are owned by the General Services Administration (GSA). The portfolio includes offices, lots, warehouses, multipurpose spaces, and structures.

[1] Notes on terminology: "Properties," "buildings," and "facilities" may be used interchangeably; "Personnel" refers to different subsets of people depending on the domestic or overseas context (more information is provided in the below sections).

Table 1: Climate Scenarios Considered in Agency Risk Assessment

Scenario Descriptor	Summary Description from 5th National Climate Assessment (NCA5)
RCP 8.5: Very High Scenario	Among the scenarios described in NCA5, RCP 8.5 reflects the highest range of carbon dioxide (CO_2) emissions and no mitigation. Total annual global CO_2 emissions in 2100 are quadruple emissions in 2000. Population growth in 2100 doubles from 2000. This scenario includes fossil fuel development.
RCP 4.5: Intermediate Scenario	This scenario reflects reductions in CO_2 emissions from current levels. Total annual CO_2 emissions in 2100 are 46% less than the year 2000. Mitigation efforts include expanded renewable energy compared to 2000.

Additional details about the data used in this assessment are provided in Appendix A.

Table 2: Climate Data Used in Agency Risk Assessment for Domestic Facilities

(descriptions below are not applicable for Overseas Facilities, see footnotes and Appendix B for further information on overseas data)

Hazard	Description	Scenario	Geographic Coverage
Extreme Heat	Measured as whether an asset is projected to be exposed to an increased number of days with temperatures exceeding the 99th percentile of daily maximum temperatures (calculated annually), calculated with reference to 1976-2005. Data are from high-resolution, downscaled climate model projections based on the Localized Constructed Analogs (LOCA) dataset prepared for the 4th National Climate Assessment.	RCP 4.5	CONUS
		RCP 8.5	CONUS
Extreme Precipitation	Measured as whether an asset is projected to be exposed to an increased number of days with precipitation amounts exceeding the 99th percentile of daily maximum precipitation amounts (calculated annually), with reference to 1976-2005. Data are from high-resolution, downscaled climate model projections based on the LOCA dataset prepared for the 4th National Climate Assessment.	RCP 4.5	CONUS
		RCP 8.5	CONUS and AK
Sea Level Rise	Measured as whether an asset is within the inundation extents from NOAA Coastal Digital Elevation Models and the 2022 Interagency Sea Level Rise Technical Report. Intermediate and Intermediate-High sea level rise scenarios used as proxies for RCP 4.5 and 8.5, respectively.	RCP 4.5	CONUS and PR
		RCP 8.5	CONUS and PR

Hazard	Description	Scenario	Geographic Coverage
Wildfire Risk	Measured as whether an asset is in a location is rated as high, very high, or extreme risk based on the U.S. Forest Service Wildfire Risk to Potential Structures (a data product of Wildfire Risk to Communities), which estimates the likelihood of structures being lost to wildfire based on the probability of a fire occurring in a location and likely fire intensity. Data reflects wildfires and other major disturbances as of 2014.	Historical	All 50 States
Flooding	Measured as whether an asset is located within a 100-year floodplain (1% annual chance of flooding) or 500-year floodplain (0.2% annual chance of flooding), as mapped by the Federal Emergency Management Agency National Flood Hazard Layer.	Historical	All 50 States and PR

Exposure to extreme heat, extreme precipitation, and sea level rise were evaluated at mid- (2050) and late-century (2080) under two emissions scenarios, Representative Concentration Pathway (RCP) 4.5 and RCP 8.5. Exposure to flooding and wildfire risk were only evaluated for the present day due to data constraints.

2A. Climate Hazard Exposures and Impacts Affecting Federal Buildings

Table 3: Domestic Indicators of Exposure of Buildings to Climate Hazards

Indicators of Exposure of Buildings to Climate Hazards	RCP 4.5 2050	RCP 4.5 2080	RCP 8.5 2050	RCP 8.5 2080
Extreme Heat: Percent of buildings projected to be exposed to more days with temperatures exceeding the 99th percentile of daily maximum temperatures (calculated annually) from 1976-2005.	98%	98%	98%	98%
Extreme Precipitation: Percent of buildings projected to be exposed to more days with precipitation amounts exceeding the 99th percentile of daily maximum precipitation amount (calculated annually) from 1976-2005.	97%	98%	98%	97%
Sea Level Rise: Percent of buildings projected to be inundated by sea level rise	7.29%	8.85%	7.29%	10.42%
N/A	**High Risk**	**Very High Risk**	**Extreme Risk**	
Wildfire: Percent of buildings at highest risk to wildfire.	6%	0%	0%	

Indicators of Exposure of Buildings to Climate Hazards	RCP 4.5 2050	RCP 4.5 2080	RCP 8.5 2050	RCP 8.5 2080
N/A	**100- or 500- year floodplain**			
Flooding: Percent of buildings located within floodplains.	9.38%			

We assessed the following climate hazard exposures to our portfolio for mid-century and late-century (future projections are based on Representative Concentration Pathways (RCP) for mid-(4.5) and high-(8.5) levels of emissions):

- **Extreme Heat:** Almost all domestic facilities will see an increase in extreme heat exposure. On average, we estimate 3-4 days of extreme heat across the portfolio in 2024 and project a range of 11-55 extreme heat days by 2080.
- **Extreme Precipitation:** Almost all buildings will experience an increase in maximum precipitation days, with most seeing a 20 to 50 percent increase.

Examples from the field: The Foreign Affairs Security Training Center (FASTC) experienced a severe ice storm in 2021 that caused heavy ice buildup on trees that collapsed knocking down power lines. It took several weeks for the local utility to restore power to the area, impacting an already full training schedule at FASTC. Delayed training at FASTC can, in turn, delay deployment of foreign service officers to high-threat and other mission critical posts abroad.

Figure 1 The Foreign Affairs Security Training Center (FASTC) severe ice storm in 2021.

- **Sea Level Rise:** Seven to ten percent of domestic properties will be permanently inundated from sea level rise over the next 30 to 70 years.[2]
- **Flooding:** Six percent of the Department's properties are in a 100-year floodplain and four percent are in a 500-year floodplain. However, localized flooding during severe storms (see "Other Hazards" section below) already impacts facilities.
- **Wildfire:** Six percent of buildings have high wildfire risk.

Risk for Agency Overseas Facilities:

The Department occupies 24,602 properties overseas, including office buildings, warehouses, and owned and leased residences for Foreign Service personnel in over 170 countries. In 2020, OBO established a Climate Security & Resilience (CS&R) Program and developed a Climate Hazards screening tool for ten climate and natural hazards over several time horizons. CS&R largely uses publicly available information but has modified and/or supplemented that information for internal screening purposes. Global availability of local, sufficiently granular

[2] The data analysis, with sea levels taken from the 2022 Interagency Sea Level Rise Technical Report, accounts for inundation happening within 200 meters of a property location.

data for climate and natural hazards has posed, and will continue to pose, a significant challenge. As CS&R started developing this tool prior to E.O. 14008 and E.O. 14057, the methodology is different than the domestically applicable Federal Mapping App, but the overall approach is analogous. Methodology and data source variations are noted in Appendix B.

Summary findings include:

- **Extreme Heat:** Between 2024 and 2035, 60 percent of overseas properties will face an increase in the number of extreme heat days of 130°F or more. By 2065, 64 to 74 percent of facilities will experience this increase; by 2100, it may be as high as 88 percent. Posts represented by the Bureaus of East Asian and Pacific Affairs (EAP) and African Affairs (AF) are most exposed.
- **Sea Level Rise/Coastal Flooding[3]:** Three percent of the Department's overseas properties could be inundated by 2065, and four by 2100. The Bureau of Near Eastern Affairs (NEA) is the most exposed.
- **Riverine Flooding[4]:** About one-third of our overseas facilities are exposed to riverine flooding[5] in 2024. We anticipate that this number will increase slightly from 33 percent to 36 percent of overseas properties through 2050 and 2080 respectively.
- **Extreme Precipitation[6]:** 23 percent of our overseas properties are exposed to extreme precipitation. Properties in EAP, AF, and the Western Hemisphere Affairs (WHA) are the most significantly impacted, with over 30 percent of the locations exposed.

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[3] The DOS International Coastal Flooding metric indicates a 100-yr flood depth of ≥ 2m; it is a comprehensive measure of coastal inundation and compares extreme high tide to elevation data and incorporates projected factors including sea level rise and vertical land movement (e.g., land subsidence).

[4] For overseas properties, the Department is utilizing its analysis of riverine flooding in replacement of specific floodplains. The DOS International Riverine Flooding metric indicates inundation > or equal to 0.5m for the 500-, 100-, and 25-year riverine flood return periods. This data is based on two models (GAR15 and WRI Aqueducts) where we counted any diplomatic post that was exposed in one or both models. Mid-Century and Late-Century projections represent the 2050 and 2080 time horizons, respectively (aligning with domestic time horizons).

[5] Note that this metric does not account for potential exposure to pluvial (rainfall-induced) flooding.

- **Wildfires**[7]**:** Ten percent of the Department's overseas properties are at high or very high exposure to wildfire now.

Table 4: Climate Hazard Exposure to Overseas Buildings

Climate Hazard Exposure to Buildings (Overseas[8])	Current (Baseline to 2035)	RCP4.5 (2065) Mid-Century	RCP4.5 (2100) Late-Century	RCP8.5 (2065) Mid-Century	RCP8.5 (2100) Late-Century
Extreme Heat: Percent of agency Federal buildings located in areas projected to be exposed to an increase in the annual number of days with the heat index exceeding the National Weather Service's "Extreme Danger" threshold of 130 degrees Fahrenheit[9]	60%	64%	66%	74%	88%
Coastal Flooding: Percent of agency Federal buildings projected to be inundated by coastal flooding	2%	3%	3%	3%	4%

[7] DOS International Wildfire metric indicates locations at high or very high exposure to structural burning due to wildfires. The internal screening data is based on MODIS active fire data, global biome data, land cover data, and wildland-urban interface data.

[8] Table notes: The Department of State built its own overseas screening tool prior to E.O. 14008 and E.O. 14057 that uses different time horizons, baselines, and data sets from the tool used to assess the domestic portfolio, but the overall goal and approach is analogous. Unless otherwise noted, mid-Century and Late-Century projections represent the 2065 and 2100-time horizons respectively (differing from the domestic time horizons of 2050 and 2080). Future projections for extreme precipitation and wildfire were not available as of the date of this report.

[9] For equivalent comparison, the "Current" metric compares the baseline data with the near-term 2035.

Climate Hazard Exposure to Buildings (Overseas[8])	Current (Baseline to 2035)	RCP4.5 (2065) Mid-Century	RCP4.5 (2100) Late-Century	RCP8.5 (2065) Mid-Century	RCP8.5 (2100) Late-Century
Riverine Flooding: Percent of agency Federal buildings projected to be inundated by riverine flooding[10]	31%	33%	35%	35%	36%
Extreme Precipitation: Percent of agency Federal buildings currently exposed to extreme precipitation[11]	23%	N/A	N/A	N/A	N/A
Wildfires: Percent of agency Federal buildings currently exposed to High or Very High Risk for Wildfires	10%	N/A	N/A	N/A	N/A

[10] Riverine Flooding data is based on 2050 (mid-century) and 2080 (late-century) timelines.

[11] The Department of State (DOS) [define the acronym] International Extreme Precipitation metric indicates an area of heavy precipitation (98th percentile ≥ 20mm per Zhang et al. (2011)) with ≥ 1.0 average extreme precipitation days per year and an increasing trend in average extreme precipitation days.

Figure 2 Aerial view of flooding in Houston caused by Hurricane Harvey, Aug. 31, 2017. After hurricanes Harvey and Maria impacted Department facilities in 2017, the Bureau of Administration Office of Emergency Management led teams of incident management personnel who traveled to Texas and Puerto Rico to provide life, health, and safety coordination to the international community. Photo by Tech. Sgt Larry Reid Jr Courtesy of State Magazine

2B. Climate Hazard Exposures and Impacts Affecting Federal Employees

Domestically, the Department employs more than 12,000 direct hire Civil Service employees[12]; more than half are in the National Capital Region. The Department's analysis found:

- Extreme Heat: Essentially all Department employees will be exposed to increases in the number of extreme heat days by 2050. Almost all employees will see a three- to ten-fold increase in the number of extreme heat days by 2050, and up to 15-fold by 2080.

[12] The Department was directed to use the White House and National Oceanic and Atmospheric Agency-developed Federal Mapper tool for analysis. The associated personnel dataset does not account for Foreign Service Officers in domestic postings and/or contractors the number. See Appendix A for more information.

- Extreme Precipitation: Essentially all Department employees will experience a two- to five-fold increase in extreme precipitation days by 2080.
- Sea Level Rise[13]: At mid-century, under both high and low emissions scenarios, 12 percent of personnel are expected to work in counties that have some level of inundation from sea level rise.
- Wildfire: Three percent of personnel are in locations with high, very high, or extreme wildfire risk. Air pollution is an additional risk noted the in "Other Hazards" section.

Table 5: Indicators of Exposure of Domestic Employees to Climate Hazards

Indicators of Exposure of Employees to Climate Hazards	RCP 4.5 2050	RCP 4.5 2080	RCP 8.5 2050	RCP 8.5 2080
Extreme Heat: Percent of employees duty-stationed in counties projected to be exposed to more days with temperatures exceeding the 99th percentile of daily maximum temperatures (calculated annually), from 1976-2005.	100%	100%	100%	100%
Extreme Precipitation: Percent of employees duty-stationed in counties projected to be exposed to more days with precipitation amounts exceeding the 99th percentile of daily maximum precipitation amount (calculated annually), from 1976-2005.	100%	100%	100%	100%

[13] The data analysis, with sea levels taken from the 2022 Interagency Sea Level Rise Technical Report, accounts for inundation happening within a county where personnel work.

Indicators of Exposure of Employees to Climate Hazards	RCP 4.5 2050	RCP 4.5 2080	RCP 8.5 2050	RCP 8.5 2080
Sea Level Rise: Percent of employees duty-stationed in counties projected to be inundated by sea level rise.	12%	91%	12%	91%
N/A	**High Risk**	**Very High Risk**	**Extreme Risk**	
Wildfire: Percent of employees duty-stationed in counties at highest risk to wildfire	1%	1%	1%	

Overseas, there are substantial climate impacts for personnel. The Department of State used the F-77 Report of Potential Evacuees to estimate overseas staffing for U.S. Direct Hire staff, eligible family members, and Locally Employed Staff. For this section, "personnel" refers to all the above, even if they may not be employed by the Department of State. Key findings from the report include:

- Extreme Heat: Almost all overseas personnel will face increases in extreme heat exposure by 2065 and 2100, with EUR, WHA, and NEA seeing the greatest increases.
- Riverine Flooding: By late-century (2080), forty percent of personnel may be exposed to riverine flooding, with EUR and NEA regions most exposed.
- Extreme Precipitation: In 2024, about one quarter of personnel are exposed to extreme precipitation, particularly in EAP, AF, and WHA.
- Coastal Flooding: Overall, the number of personnel exposed to coastal flooding may be four percent by 2100, with NEA most exposed.
- Wildfires: In 2024, 11 percent of personnel are exposed to wildfires at a high or very high level, especially in AF. Future projections are not available for this metric.

Table 6: Climate Hazard Exposure to Personnel Overseas

Climate Hazard Exposure to Personnel (Overseas)[14]	Current	RCP4.5 (2065) Mid-Century	RCP4.5 (2100) Late-Century	RCP8.5 (2065) Mid-Century	RCP8.5 (2100) Late-Century
Extreme Heat: Percent of agency Federal personnel located in areas projected to be exposed to an increase in the annual number of days with the heat index exceeding the National Weather Service's "Extreme Danger" threshold of 130 degrees Fahrenheit	48%	87%	88%	90%	95%
Coastal Flooding: Percent of agency personnel projected to be inundated by coastal flooding	2%	3%	3%	3%	4%
Riverine Flooding: Percent of agency personnel projected to be inundated by riverine flooding[15]	37%	40%	41%	41%	42%
Extreme Precipitation: Percent of agency personnel currently exposed to extreme precipitation	24%	N/A	N/A	N/A	N/A

[14] Represents sum of total personnel count (U.S. Direct Hire staff, eligible family members, and Locally Employed Staff) from F-77 Report of Potential Evacuees at any affected posts. The F-77 report also includes estimates of American citizens in country, however this was not included in the Department's analysis. "Affected post" is defined as any post where the hazard threshold was met either at the primary building (e.g., chancery) or by a weighted average of all facilities.

[15] Riverine Flooding data is based on 2050 (mid-century) and 2080 (late-century) timelines.

Climate Hazard Exposure to Personnel (Overseas)[14]	Current	RCP4.5 (2065) Mid-Century	RCP4.5 (2100) Late-Century	RCP8.5 (2065) Mid-Century	RCP8.5 (2100) Late-Century
Wildfire: Percent of agency personnel currently exposed to High or Very High Risk for Wildfires	11%	N/A	N/A	N/A	N/A

2C. Climate Hazard Exposures and Impacts Affecting Federal Lands, Waters and Cultural Resources

The Department does not manage any significant Federal land or water outside of the properties on which its buildings reside. The Department does manage artwork and culturally or historically significant buildings and landscapes, including 270 heritage buildings and landscapes overseas, and including more than 16,000 pieces in overseas locations. Such assets are exposed to all hazards which may act to degrade the quality of artwork and/or integrity of heritage buildings and landscapes. Considering future climate projections, exposure and impacts to our overseas assets is anticipated to increase in terms of number of buildings, landscapes, and artwork pieces affected. The Department is leveraging resources noted in section 3 to address a wide variety of hazard impacts.

2D. Climate Hazard Exposures and Impacts Affecting Mission, Operations and Services

Table 7: Summary of Key Current and Projected Climate Hazard Impacts and Exposures

Area of Impact or Exposure	Identified Climate Hazard	Description
Protect, provide assistance to, or evacuate U.S. citizens abroad.	Flooding (including sea level rise projections), extreme precipitation, extreme heat, and wildfires.	Increased requests for evacuation or emergency support from personnel, families, and citizens due to natural hazard crises or destabilizing aftershocks. Such crises may prevent employees and citizens reaching facilities, airports, etc. for services. Increased need to prepare and warn American citizens of potential hazards and emergencies.
Adjudicate visa and passport applications, facilitate lawful immigration, provide third-country representation of foreign governments and the determination of nationality of persons outside the United States.	Flooding, (including sea level rise projections), extreme precipitation, extreme heat, and wildfires.	Facilities and IT support for services may be inaccessible; access to information to adjudicate visas may be reduced or limited; more climate-related demand for services. Climate change is anticipated to drastically increase migration and refugees, which will lead to more visa and asylum requests.

Area of Impact or Exposure	Identified Climate Hazard	Description
Conduct Public Diplomacy to advance U.S. interests around the world.	Flooding (including sea level rise projections), extreme precipitation, extreme heat, and wildfires.	The impacts of climate change can undermine development gains, exacerbate geopolitical tensions, and result in greater instability and humanitarian need, thus intensifying existing and creating new public diplomacy challenges. As countries experience climate impacts and prioritize adaptation, there is a reputational risk for the Department and United States if we are not seen to be credibly leading international efforts to address the climate crisis, including delivering adaptation support. Additionally, exchanges and events may be canceled due to climate-related impacts. Increased engagement is necessary to educate public on risk, precautions, and what the Department is doing to lead in climate adaptation and emergency preparedness.
Establish and maintain operations and communications with overseas posts and offices.	Flooding (including sea level rise projections), extreme precipitation, extreme heat, and wildfires.	Standard lines of communication may be compromised; facilities may be more frequently damaged. Additionally, transportation infrastructure systems, including roads, runways, ports, and railway tracks, may be compromised.

Area of Impact or Exposure	Identified Climate Hazard	Description
Establish and maintain diplomatic relations with foreign nations to support and promote international understanding of U.S. policies and positions.	Flooding (including sea level rise projections), extreme precipitation, extreme heat, and wildfires.	The impacts of climate change can undermine development gains, exacerbate geopolitical tensions, and result in greater instability and humanitarian need. Increased conflict and insecurity in all forms (physical, food, etc.) could strain relations and/or require U.S. evacuations. Increased health impacts from growing disease vectors, increased migration/refugee flows, and other factors could have similar results. Host governments and civil society under strain may not be able to easily maintain relations in a crisis. Increased need for support and financial aid, with shorter timelines for delivery. Host governments could turn to strategic competitors who can often promise and deliver assistance faster than the United States.
Develop and maintain international situational awareness and report on conditions overseas that bear on foreign policy.	Flooding (including sea level rise projections), extreme precipitation, extreme heat, and wildfires.	Communications with post and partners may be reduced. The risk factors listed above could also make it hard or impossible to relay reliable, real-time information.

Area of Impact or Exposure	Identified Climate Hazard	Description
Execute the foreign policy of the United States by directing, coordinating, and supervising interdepartmental activities of the U.S. Government abroad.	Flooding (including sea level rise projections), extreme precipitation, extreme heat, and wildfires.	Need for increased presence of relevant interagency partners at post to address local climate change issues, but potentially reduced capacity to safely host those partners due to the risk factors described.
Direct and execute the formulation and implementation of the Foreign Policy of the United States.	Flooding (including sea level rise projections), extreme precipitation, extreme heat, and wildfires.	As described above, the ability of the Department to carry out U.S. foreign policy objectives could be significantly degraded by climate-security related factors, including increasing portions of programs and budgets directed to climate-related issues; reduced or strained capacity to deliver aid.

The Department evaluated climate exposure to our eight primary mission essential functions, listed in the table. All eight mission essential functions are currently exposed to climate impacts and the Department's ability to carry out all eight could be significantly degraded by worsening climate scenarios.

- **Flooding (inclusive of Sea-Level Rise), Extreme Precipitation:** Flooding and precipitation will impact the Department's foreign assistance, particularly around disaster relief and health. Rising sea levels have devastating impacts on key island and coastal nations. Increased precipitation and changing weather patterns will likely increase incidence of mosquito-borne illness and other communicable diseases as well negative impacts on

food supply. We will need to adjust our capacity building and aid activities to alleviate severe acute and long-term impacts. The Department has experienced and anticipates future major flooding impacts, including:

- Reduced or blocked access for customers and employees to access and provide consular services.
- Equipment and facility harm, reducing ability to serve customers and impacting mission continuity. For example, severe weather and high tides in 2016 prevented Diplomatic Security personnel onboard a merchant vessel from docking at the Port of Mariel for several days which delayed preparations for the opening of the U.S. Embassy in Havana, Cuba.
- Reduced evacuation services to airport and evacuation routes being restricted because of high water. For example, Manila (2022) and Chennai (2023) both experienced flooding that prohibited access to airports for safe evacuation and, in some cases, shuttered operations.
- Reduced ability to deliver foreign assistance. In Libya, the Department had to halt foreign assistance activities due to high water preventing access to beneficiaries.

Examples from the field: Significant rains in Santo Domingo caused a massive landslide which flooded the U.S. Embassy and damaged the computer server rooms, suspending operations and communications.

- **Extreme Heat:** Extreme heat is impacting Department operations through:
  - Electricity blackouts and brownouts due to failure of overloaded electrical grids, both in the United States and overseas.
  - Airport closures and/or railroad buckling, impacting evacuations, supply chain, and services.
  - Higher maintenance and replacement costs due to faster-degrading equipment and building materials.
  - Personnel morale and health degradations.

  - Example from the field: High heat on tarmacs in Mexico City prevented importation of COVID-19 vaccines. To overcome this consistent issue and avoid significant health and safety impacts, the Department had to purchase and ship adequate refrigeration devices to cool the vaccines.

- **Wildfires and Air Pollution:** Wildfires and severe air pollution events are increasing in frequency and severity due to extreme heat, desertification, and atmospheric changes due to climate change, among other reasons. The Bureau of Medical Services estimates that approximately 80 percent of U.S. diplomatic posts are in locations where fine particle pollution levels exceed the U.S. Environmental Protection Agency's (EPA) annual air quality standard. Impacts include:
  - Reduced visibility for and performance of satellite imagery, intelligence, and communications tools that Department officials rely on.
  - Need to retrofit buildings or re-bid designs to increase filtration and protect employees, potentially increasing costs but potentially reducing health impacts for employees.
  - Policy changes to reduce potential health impacts for employees working outdoors.
  - Reduced ability to staff posts in highly impacted regions due to health and morale concerns.
  - Cancelling diplomatic events.
  - Closure of airports, potentially preventing or delaying personnel or supply movement.
  - Local health emergencies.

Examples from the field: In June 2023, with air pollution from wildfires in Canada blanketing the Northeastern and Mid-Atlantic United States for the first time, the Department issued guidance to domestic personnel typically leveraged for overseas personnel on how to reduce their exposure to extreme air pollution.

Figure 3 Image of the New York City skyline with dangerous levels of pollution as seen on June 7, 2023. [Photo by Lauren Oliveri]

In addition to the impacts to operations enumerated above, the Department acknowledges how worsening geo-political realities related to climate-security concerns could challenge our core diplomatic functions. An illustrative example of these concerns is the potential for increased migration flows as climate change impacts become more frequent and intense. Extreme weather events are already one of the top drivers of forced displacement globally.[16] Climate change impacts food and water security, housing and infrastructure, livelihoods, health, and safety, and exacerbates existing social, economic, and environmental vulnerabilities. It also intersects with other root causes of migration and displacement, such as conflict and insecurity, persecution and human rights abuses, poverty, and corruption. Increased migrant populations

[16] The "White House Report on the Impact of Climate Change on Migration, 2021."

may significantly impact our visa, refugee, and foreign assistance activities. It also presents challenges for bilateral and multilateral relationships; strains U.S. and partner resources; and adds to the global population of peoples vulnerable to exploitation by terrorist organizations, organized crime groups, and other destabilizing entities.

2E. Impacts from and Exposure to Additional Hazards

The Bureau of Overseas Buildings Operations assesses exposure for additional hazards to our oversees building portfolio that are not a focus elsewhere in this report, including tsunami, earthquake, landslide, volcanos, extreme wind, and water stress. A summary of exposure to our buildings from these hazards is included in the following table, supplemented by additional information contained in Appendix B. Note that water stress will be common by 2035 with the following regions most impacted: SCA (89%); NEA (87%); EAP (72%) and EUR (69%).

Table 8: Impacts from and Exposure to Additional Hazards of Overseas Buildings

Other Hazard Exposure to Buildings (Overseas)	Current	RCP4.5 (2065) Mid-Century	RCP4.5 (2100) Late-Century	RCP8.5 (2065) Mid-Century	RCP8.5 (2100) Late-Century
% of agency Federal buildings located in areas exposed to tsunami[17]	2%	3%	3%	3%	3%

[17] 500-yr tsunami inundation depth ≥ 1 m based on Global Tsunami Model tsunami wave heights and ASADEM/GMTED2010 ground elevation within 10 km of coastline. Mid-Century and Late-Century projections represent the 2065 and 2100 time horizons, respectively (differing from the Federal Climate Mapping for Resilience and Adaptation Application 2050 and 2080).

Other Hazard Exposure to Buildings (Overseas)	Current	RCP4.5 (2065) Mid-Century	RCP4.5 (2100) Late-Century	RCP8.5 (2065) Mid-Century	RCP8.5 (2100) Late-Century
% of agency Federal buildings exposed to extreme wind[18]	30%	33%	33%	33%	33%
% of agency Federal buildings exposed to water stress[19]	50%	63%	N/A	63%	N/A
% of agency Federal buildings located in areas exposed to earthquake[20]	47%	N/A	N/A	N/A	N/A
% of agency Federal buildings exposed to landslide[21]	11%	N/A	N/A	N/A	N/A
% of agency Federal buildings exposed to volcanos[22]	9%	N/A	N/A	N/A	N/A

[18] 1000-year wind speed ≥ 154 km/hr based on both hourly wind speed and cyclonic wind speed sources from NASA MERRA2 data. Mid-Century and Late-Century projections represent the 2065 and 2100 time horizons, respectively (differing from the Federal Climate Mapping for Resilience and Adaptation Application 2050 and 2080).

[19] Mid-century for water stress is estimated for 2035 due to available data. Medium High, High, or Very High ratio of water demand to water supply for a hydrological subbasin based on World Resources Institute's 2019 update of the Aqueduct water risk framework.

[20] Moderate High, High, or Very High seismicity zonation based on FEMA P-154 methodology.

[21] Average annual frequency of occurrence per km2 ≥ 0.001 for a significant landslide occurring due to rainfall or earthquake triggers based on World Bank's packaging of NASA landslide data and NOAA rainfall data.

[22] Moderate, High, or Very High threat of volcano based on modified 12-parameter USGS NVEWS methodology, proximal distance, and probabilistic ashfall exposure.

Section 3: Implementation Plan

3A. Addressing Climate Hazard Impacts and Exposure

3A.1. Addressing Climate Hazard Exposures and Impacts Affecting Federal Buildings

Table 9: Prioritized Actions to Address Climate Hazard Exposures and Impacts Affecting Federal Buildings

Climate Hazard Impact on and/or Exposure to Buildings	Priority Action	Timeline for implementation (2024-2027)
All Hazards, 100% domestic facilities impacted	Develop a climate risk framework to assess building exposure (noted in section 2) to climate risks and incorporate other factors (such as building age, essential equipment age, building criticality, etc.) to support project prioritization.	2024 – Use risk data to update domestic master space plans (domestic). 2025 – Develop methodology for framework, conduct analysis. 2027 – Building managers use analysis to develop projects and incorporate into budget requests and GSA reviews.

Climate Hazard Impact on and/or Exposure to Buildings	Priority Action	Timeline for implementation (2024-2027)
All hazards, 100% overseas facilities impacted	Avoid housing acquisitions in high-risk areas; prioritize eliminating existing residences in high-risk areas.	2025 – Update lease review process to include climate risk (overseas). 2027 – Establish a standard process and/or tools to guide collaboration with other offices and posts in identifying existing exposed residences and that informs new housing acquisitions to avoid exposure and better manage natural hazard risk at the onset.
All Hazards, 100% domestic facilities impacted	Continue to perform Strategic Asset Management Plans (SAMP) and increase use of climate data to enhance site-level analysis.	2024 – Share exposure data with SAMP contractors 2025 – 2027 – Annually complete three SAMPs
All hazards, 100% overseas facilities impacted	Scale CS&R program, which is vital for assessing overseas natural hazard risks and facilitating necessary adaptation strategies.	If resourced to scale, the CS&R program anticipates fully building its capacity by no later than 2033, in accordance with its Change Management Plan. At status quo funding levels, the program expects to begin re-evaluating and updating its change management plan starting in FY25.

Climate Hazard Impact on and/or Exposure to Buildings	Priority Action	Timeline for implementation (2024-2027)
All hazards, 100% overseas facilities impacted	Ensure that portfolio-wide natural hazard risk screening utilizes best available screening information.	On-going with updates as necessary and dictated by evolution of climate science models.
Flooding and Tsunami, More than 30% overseas facilities impacted	Obtain comprehensive flood exposure maps (inclusive of climate projections) via contracting with the private sector, and develop detailed tsunami exposure maps and projections via interagency agreements with the National Oceanic and Atmospheric Administration to inform projects.	On-going with annual review of forthcoming projects to appropriately schedule the exposure studies.
All Hazards, 100% overseas facilities impacted	Ensure climate resilience is incorporated into OBO's capital planning and investment strategies for functional and designated residence properties.	2030 – Transition from legacy Capital Planning Process to new process that considers a resilience indicator. On-going - OBO's Representational Facility program has included an updated resilience indicator starting in FY24.
All Hazards, overseas	Engage with local and host governments and civil society to improve host nation capacity to improve climate resilience.	Continue to engage via Green Teams, Greening Government Initiative, educational exchange programs, and other platforms.

By 2080, nearly all the Department's domestic facilities will face increased extreme heat and precipitation. Severe storms have had significant impact already, knocking our operations offline and damaging buildings, particularly on the east coast of the United States (GSA Regions 1, 2, 3, 4, and 11). In many cases, installing battery backup and renewable power generation systems will improve resilience. For facilities in GSA Region 4 (southeast United States), moving electric and water systems to higher elevations and enhancing drainage may reduce risks.

Through its Real Property Asset Management (RPAM) program, the Department has developed an Enterprise Location Framework (ELF) and Master Housing Plan that are living documents used to develop and implement space standards and strategies, which include the use of enterprise space, hoteling, and densification. The Department is also working to reduce its carbon footprint, increase its preparedness to address climate hazards, and improve upon the overall resiliency and sustainability of domestic facilities. One tool is Strategic Asset Management Plans (SAMPs), which are major exercises to review space utilization and tenant plans, systems, sustainability, security, and resilience to climate impacts, and include recommendations on achieving EO 14008 and 14057 targets.

The Department also utilizes procurement to advance sustainability goals. For all new construction and renovation work, DOS procures professional Architectural and Engineering (A/E) services and applies sustainable design principles at all phases of design and construction. Sustainable designs are incorporated by the A/E (at the design phase), where the standard is 30 percent below ANSI/ASHRAE/IESNA Standard 90.1—2019. Also included in the procurement of design services for new stand-alone buildings are flood assessment studies, which can be expanded upon to adopt one of the three approaches outlined in the Federal Flood Risk Management Standard (FFRMS) for domestic properties. Subject to the availability of resources and in support of guidance and best practices set forth in OMB M-24-03, Advancing Climate Resilience through Climate-Smart Infrastructure Investments and Implementation Guidance for the Disaster Resiliency Planning Act, DOS will review all Design and Construction Standards and guidelines in 2025 to incorporate assessments of climate risk, FFRMS, and other necessary climate-related elements.

Overseas, the Department's focus is to further build the capacity and capabilities of its CS&R program and continue to leverage this data to change its real property management policies and processes. The Department prioritizes overseas capital investments based on a new Capital Planning Process (CPP), which annually reviews the Department's functional overseas real property (office, warehouses, and medical facilities) against natural hazards and other non-natural hazard related indicators. The Representational Facilities (RepFac) program (including Chief of Mission Residences and other designated representational residences) is aligned with the CPP methodology in analyzing assets across multiple indicators, including the same natural hazards. As part of the CPP and RepFac processes, Business Case Evaluations (BCEs) identify options that include determining if functions should be relocated to lower risk properties. Every functional property is assessed, scored, and prioritized through OBO senior leadership to select potential capital investments for further project development. The Department concluded its first annual CPP cycle in FY23 and expects to fully transition to the new methodology in FY30. For new construction and acquisitions, the acquisitions teams work with the CS&R program and other engineers to assess current and future exposure to understand possible adaptation strategies before assets are acquired. As a part of regular due diligence, the Department has divested higher risk properties.

In response to Executive Orders 13690 and 14030, the Department's overseas design and construction codes include requirements for flood risk management for all major projects. Civil engineers must review major projects for embassy and consulate locations to determine susceptibility to inundation by floods in accordance with the approach outlined in the FFRMS. Due to the reduced availability of verifiable floodplain mapping in many overseas locations, OBO's code includes more stringent freeboard requirements than the FFRMS. OBO code supplements also require protection and mitigation measures for buildings and infrastructure currently located in flood-prone areas.

3A.2. Addressing Climate Hazard Exposures and Impacts Affecting Federal Employees

Table 10: Prioritized Actions to Address Climate Hazard Exposures and Impacts Affecting Federal Employees

Climate Hazard Impact on and/or Exposure to Employees	Priority Actions	Timeline for implementation (2024-2027)
Climate and natural hazards will increase needs for Weather & Safety Leave (WSL) and greater use of existing flexible leave and telework polices for weather events (unscheduled leave and telework). (Domestic and overseas)	Existing telework and leave policies address severe weather events (including air pollution, severe storms, and other severe weather) and provide for unscheduled telework, Weather & Safety Leave for non-telework eligible employees, or unscheduled leave. State will continue to regularly inform the workforce.	Continued implementation under current authorities, additional notices/reminders on policy when applicable.
Climate and natural hazards may physically harm personnel or their property. (Domestic and overseas)	Provide consistent, up-to-date, and accurate guidance to personnel for various extreme weather circumstances (e.g., hurricanes, blizzards, etc.) to help personnel prepare.	Annually - Host webinars, provide Department notices on resources, train Designated Bureau/Office Emergency Coordinators on resources and guidance.

Climate Hazard Impact on and/or Exposure to Employees	Priority Actions	Timeline for implementation (2024-2027)
Climate and natural hazards can disrupt operations, personnel health and safety, and ability to transport and communicate. (Overseas)	Templates are currently being developed by OBO and the Bureau of Diplomatic Security's Emergency Planning Unit (DS/HTP/SP/EP) for posts to use when developing their own post-specific response plans. Posts at-risk for natural disasters will be encouraged to update their Emergency Action Plans to include applicable natural hazard response plan(s).	2024-2025 – Finalize exemplars and disseminate to posts. 2025 – Regional Bureaus encourage posts at risk of natural hazards to utilize exemplars to develop post-specific response plans and integrate them in their Emergency Action Plans for relevant posts. 2027 – Repeat Emergency Action Plan review to determine how many Posts incorporated the suggested exemplars.

Climate Hazard Impact on and/or Exposure to Employees	Priority Actions	Timeline for implementation (2024-2027)
Climate and natural hazards can strain already limited central emergency support. (Overseas)	Enhance centralized tracking of and enable better planning for potential climate and natural hazards to personnel and operations by including risk information in the Operations Response Interagency Online Network (ORION).	2024 – Scope data needs and methodology and integration of initial climate risk data into ORION
Air Pollution[23], 80% of overseas posts have annual air pollution levels at or above that of the highest U.S. city, which reduces morale and can cause negative health impacts. (Overseas)	Leverage Air Pollution Working Group and Air Quality Monitoring Program to provide resources and guidance to personnel to mitigate exposure to air pollution. Incorporate NASA AI forecast into ZephAir app to inform personnel and public of risks.	Annually – publish Department-wide communications on preparing for peak pollution season. 2024 – publish AI forecast in ZephAir.

[23] Air pollution includes smoke from wildfires, along with vehicle exhaust, crop burning, and other sources. The Department's app does not differentiate based on source, it just publishes the pollution information. As air pollution is exacerbated by climate change, we are including this as it is a short and long-term educational tool.

Climate Hazard Impact on and/or Exposure to Employees	Priority Actions	Timeline for implementation (2024-2027)
Climate and natural hazards that limit transportation options and support to remote Pacific islands. (Overseas)	The limited number of flight routes to some of EAP's most isolated posts (small island states) are the most concerning in the event of a crisis or natural disaster	2025 - EAP is in active discussions to propose a ring route to service these isolated posts on a more frequent schedule to mitigate risk to personnel in these locations.

To reduce risks to personnel, in addition to the items in the table, the Department will continue to leverage two existing efforts: improving workforce mobility and emergency preparedness.

Workforce Mobility

Prior to the COVID-19 pandemic, the Department's ability to meet its mission was highly dependent on personnel being able to report to an office. Since 2020, the Department has significantly advanced mobility, a core element of the Secretary's Modernization Agenda, and is transitioning to a mission-first hybrid work environment that is resilient, agile, secure, and inclusive. This change is critical as climate hazards are already impacting our employees and customers' ability to get to our facilities. We have updated telework policies, modernized space management, and issued nearly 24,000 laptops and over 500 mobile devices through the Tech for Life pilot.

Emergency Preparedness

Domestically, A Bureau's Office of Emergency Management (A/OEM) incorporates climate considerations into emergency preparedness and readiness efforts, including enhancing individual facilities' occupant emergency plans (OEP). A/OEM endeavors to deliver a robust

emergency readiness program that includes increasing the preparedness of Department personnel through awareness and education campaigns. Examples include webinars on severe weather, emergency planning guides and resources for leadership at the bureau/office levels, outreach to Designated Officials/Occupant Emergency Coordinators within the facilities, and supporting the execution of emergency preparedness exercises at the facility level.

Overseas, the Department is focused on mitigating risk through enhancing individual posts' Emergency Action Plans through the incorporation of natural hazard-focused custom annex exemplars, templates that posts can use to plan customized preparation for and responses to acute-onset hazards. The exemplars will address hazards to include flood, landslide, tropical cyclone, wildfires, tsunami, volcanic eruptions, and earthquake. The exemplars in development will provide posts with response plan hazard-specific examples for at-risk posts to use when developing their own post-specific response plans. These exemplars are expected to be finalized and released to the field in 2024. Additionally, through the Foreign Service Institute (FSI), posts are regularly trained on responding to crises.

Other Efforts

Overseas and domestically, staff that work outdoors, such as security and maintenance staff and gardeners, are at greatest risk of heat stress and pollution. The Department provides health and safety guidance and tools including personal protective equipment (e.g., respirators and ice vests) and increasing the frequency of rest breaks in cool areas. Additionally, we established a working group to help identify and manage health risks to staff from air pollution. The Department's air quality monitoring program, available in 80 overseas locations as of 2024, shares real-time data via the ZephAir app and will continue to expand in overseas locations where needed. Though the air pollution strategies employed are not primarily intended to address wildfire smoke, they do have the secondary benefit of capturing exposure to wildfire smoke.

The Department's Crisis Management Strategy (CMS) Office developed a common operating platform called the Operations Response Interagency Online Network (ORION) that accumulates

threat reporting, security, and hazard data from Department, open source, and interagency resources for display and analysis. ORION tracks space weather, global health, hurricane and typhoon warnings, and natural hazard occurrence data to inform Department leadership decision-making. The Office of Management Strategy Solutions (M/SS), CMS, OBO, OES, Enterprise Governance Board working group members, and other bureaus will work together to assess how to incorporate other risks.

Additionally, it is vital for the Department and other interagency partners to work with local and host governments to improve local and country-wide adaptation and resilience efforts to secure our foreign affairs mission. The Department leads the interagency in the implementation of the President's Emergency Plan for Adaptation and Resilience (PREPARE), an overarching framework for U.S. Government international adaptation and resilience support to developing countries. Reducing the long-term risks and building resilience of these countries will also benefit our overseas personnel, buildings, and supply chains.

3A.3. Addressing Climate Hazard Impacts on and Exposure to Federal Lands, Waters and Cultural Resources

Culturally or historically significant assets under the agency's care may be negatively impacted by climate and natural hazards (see section 2C for potential impacts). The Department is leveraging its IoT to pilot ways to protect assets. For example, sensors remotely collect and transfer data to a centralized tracking and notification system when parameters are outside of pre-defined ranges or conditions. Sensors being tested include temperature, humidity, and water sensors to monitor artwork, in addition to other areas and assets including server rooms, and diesel and water tank levels.

The Department also supports the protection and preservation of other nations' cultural resources. The U.S. Ambassadors Fund for Cultural Preservation has funded multiple projects mitigating the effects of climate change on cultural heritage around the world. Recent examples include restoring ancient and historic *hitis*, or traditional water fountains, to support

communities in Nepal's Kathmandu Valley impacted by mounting water insecurity, conducting a landscape restoration and shoreline study on Providence Island, considered the birthplace of modern Liberia, and supporting an initiative between the National Trust of Trinidad and Tobago and the University of Florida's Historic Preservation Program to advance the resilience and preservation of the island nation's heritage sites from rising seas.

Advancing the America the Beautiful Initiative

The Department takes care to responsibly manage and conserve land and water and encourage the growth of native and pollinator plants domestically and abroad. Overseas, we have a three-pronged strategy to advance land, water, and natural habitat conservation, native planting, and pollinator support at the Department's properties. Our Tree Canopy Initiative at 28 diplomatic posts is increasing tree cover to reduce heat stress and two dozen posts overseas are National Wildlife Habitat certified. OBO and A Bureau partnered to develop specific trainings on environmental stewardship for facilities managers and locally employed staff and support site performance monitoring efforts. The training series offers interactive workshops and connects regional networks of facility managers for the adoption of best practices in water conservation, planting care, and resilient land management.

Domestically, the National Foreign Affairs Training Center (NFATC) in Arlington, Virginia, has regenerative stormwater conveyances and uses ecologically based landscape maintenance strategies. The grounds are also National Wildlife Habitat certified and several structures employ "green roofs," which helps insulate the buildings more effectively from extreme temperatures. At another facility in Virginia, the Department has dedicated one acre of land to developing a pollinator-friendly habitat and is working to control invasive non-native species. State is also engaging with the landholder to conduct a 200-acre prescribed burn in 2024 to reduce hazardous fuel loading and wildfire risk to the facility, as well as control invasive vegetation.

Many of the Department's policy and educational programs support land and water conservation. OES manages a portfolio of conservation-related foreign assistance programming,

including combating nature crimes, such as illegal logging and associated trade, which contribute significantly to global deforestation and carbon emissions, leading to land, soil, and ecosystem degradation and increased disaster risk. Intact forests serve as climate change buffers, mitigating impacts like temperature variability and unpredictable rainfall, while also delivering crucial ecosystem services such as water regulation, and soil stabilization.

In water conservation policy, OES manages a portfolio of assistance programs that leverage both U.S. government interagency and domestic U.S. expertise to provide technical assistance and build lasting relationships in support of improving management of water resources abroad. Programming is further supported through the OES-led Interagency Water Working Group (IWWG), which serves as the central platform for coordinating activities. For example, the Ambassador Water Experts Program (AWEP), implemented by the Department of the Interior (DOI), recruits U.S. experts to provide ad-hoc technical assistance to participants ranging from senior officials to local water associations.

Other Department programs that enhance global land and water conservation efforts include the International Visitor Leadership Program (IVLP), the Fulbright Student and Scholars Program, the Hubert H. Humphrey Program, and the Office of American Spaces. One example is the IVLP annual special initiative entitled "The Climate Crisis: Working Together for Future Generations" that examines priority areas for international cooperation and practical actions to raise awareness of climate change challenges and promote public engagement in environmental conservation. Other examples include IVLPs on drought preparedness and resilience, disaster preparedness and emergency management.

3B. Climate-Resilient Operations

3B.1. Accounting for Climate Risk in Planning and Decision Making

At the Department level, climate adaptation is a focus of Objective 1.2 of the 2022-2026 State-USAID Joint Strategic Plan (JSP), to which bureaus and missions align their annual resource requests and link their own strategic objectives. Climate risk assessment, adaptation, and mitigation also supports JSP objectives 2.4, "Strengthen U.S. and global resilience to economic, technological, environmental, and other systemic shocks;" and 4.3 "Protect our personnel, information, and physical infrastructure from 21st Century threats." Many bureaus – including OBO, WHA, and the Bureau of Population, Refugees, and Migration (PRM) – address climate in their bureau strategic goals and/or objectives based on guidance from the JSP and White House.

In support of the JSP, State and USAID regularly establish two-year, outcome-oriented Agency Priority Goals (APGs). One of the Department's six FYs 2024-2025 APGs is Climate Change, a focus of which is leveraging U.S. leadership to engage with countries to implement mitigation and/or adaptation objectives and appropriate interagency coordination. The Department tracks progress on APGs via quarterly reporting to the Office of Management and Budget (OMB).

In 2022, the Department released a new risk policy and is updating its global presence strategy; climate is included in each. In 2024, the Department will release a Risk Appetite Statement, to provide leaders with an understanding of the Department's risk appetite and to encourage holistic risk management across the spectrum of risks – to include climate risks – and mitigation.

M/SS, OBO (in accordance with the CS&R program change management plan) and A Bureau will also share their climate risk assessments across the Department. M/SS will consult with bureaus to support integration of risk as appropriate.

In support of the Department-wide JSP goals, most incorporation of risk assessment into planning and decision-making is done at the bureau level. Examples include:

- **Regional:** EAP created a Climate and Clean Energy Engagement Strategy that sets guidelines for incorporating climate risks and associated actions into decision-making processes and/or personnel. In 2023, EAP initiated annual discussions with all EAP Missions to discuss climate risks and opportunities and encourage front office-led/involved climate-risk assessments in planning and decision making. WHA will add a climate risk section showing vulnerabilities and risk mitigation plans to Functional Bureau Strategy and Bureau Resource Request.
- **Policy Engagement:** In 2023, the Department developed Climate Reference sheets, a set of standardized materials for all countries with core insights into country climate policy data, to support high demand for fast and quality climate data to prepare leadership, negotiations, and planning. These documents include climate risk information, including links to country climate risk profiles from the United States Agency for International (USAID) and the World Bank, USAID key impacts and projections, visualization of selected vulnerability indicators (water, food, extreme weather), and summaries of National Adaptation Plans.
- **Facilities:** OBO incorporates risk assessments into planning decisions related to location setting, portfolio management, design standards, and projects.
- **Bidding:** The Department's Bureau of Medical Services (MED) and M/SS make air pollution data available to personnel during the bidding process so employees can make informed decisions and plan for realities on the ground. The Department will evaluate adding relevant

climate hazards into this information process to support informed decisions around health risks.

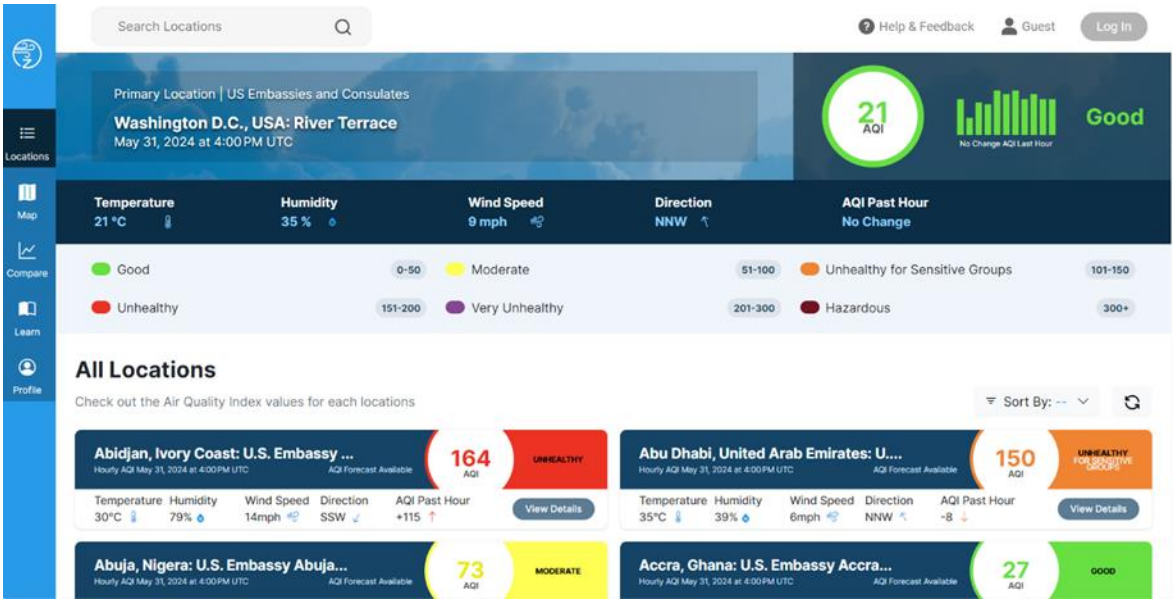
- 

Figure 4 The Department's ZephAir mobile application and dashboard provide real-time air quality information for 80 locations and forecasting for more than 260 locations globally.

Critical Systems Resilience: Both the Bureau of Global Talent Management (GTM) and Bureau of the Comptroller and Global Financial Services (CGFS) have developed plans to mitigate potential severe storm and/or other climate hazard impacts on personnel and financial data and systems that are primarily housed in areas prone to severe seasonal storms. Risk management plans for these data and systems include backup storage sites in areas that are less prone to climate-related risks at certain points of the year.

3B.2. Incorporating Climate Risk Assessment into Budget Planning –

Narrative:

Given the prominence of climate change in the Department's JSP, climate adaptation and risk – particularly implementing and funding efforts to reduce climate risk in other countries-- is a key element of high-level budget and planning decisions. As discussed above, the Department's

budget and planning decisions related to risk take place in two related contexts: our external-facing policy and programmatic work and our internal-facing management and operations.

The Bureau of Budget and Planning (BP) directs bureaus and Missions to explicitly include climate and sustainability budget needs in their annual resource requests. Prior to 2021, management and policy budget needs were considered separately, and the focus tended to be on policy-related programming, in keeping with the Department's policy mandate. Bureaus were then encouraged to include climate specific requests through the regular Mission Resource Request (MRR) and Bureau Resource Request (BRR). Once submitted, specific discussions on climate equities take place with BP and appropriate bureaus. To respond to the President's instructions, BP, M/SS, and OES have increased collaboration to create a more cross-functional approach that considers budget needs for both policy and management needs. As one example, M/SS and OES have collaborated through the annual Resourcing Strategy Review (RSR) process to identify and elevate both policy and management budget needs to senior leadership. Climate was selected as a thematic area for 2022 and 2023.

On the policy side, climate adaptation is one of the three pillars of our climate assistance funding (the others are Clean Energy and Sustainable Landscapes) and therefore a significant focus of policy and foreign assistance resource requests and budget formulation. Our foreign assistance budget requests include targeted requests for climate adaptation programming across a wide range of operating units. In addition, many operating units also implement programming that has a secondary climate benefit (known as indirect funding). The Department's foreign assistance objectives and funding levels support PREPARE. Moving forward, while there is not currently guidance at an agency level, multiple bureaus have committed to incorporate climate risk in their bureau strategies and resource requests, and identify ways to mitigate risks for executing grants.

Moving forward, the Department will evaluate developing an agency standard and guidance for how bureaus and Missions should assess, include, or prioritize climate risks in the budget and planning process, as well as how the risks should be included in routine cost benefit analysis. In addition, the Department will release guidance to bureaus on how to conduct or incorporate

climate risk into high-level budget, planning, and decision-making processes. The Department will evaluate ways to incorporate climate risk into financial cost benefit analyses, particularly on the management side, where resilience efforts can cost more upfront but less over time.

One limitation is that while the Department is working to build climate literacy in its workforce (see section 3C), technical capabilities to assess and address climate risk to programs is limited.

OBO's Climate Security & Resilience program was prioritized in the FY2024 Budget request for increased funding, but does not currently have adequate staff to complete all planned program efforts in support of State's climate resilience priorities. A Bureau does not currently have dedicated staff and technical capabilities to address climate risk outside of the contracts for the SAMPs.

3B.3. Incorporating Climate Risk into Policy and Programs

Since 2021, the Department has managed a cross-functional Climate Resilience Working Group to coordinate and discuss adaptation efforts. This is overseen by the Deputy Chief Sustainability Officer. The Department's Enterprise Governance Board is a platform to discuss enterprise risks, and will review enterprise-wide climate risk assessment and mitigation strategies as necessary. Completed policy updates include overseas emergency planning policies used by overseas posts to develop post-specific emergency action plans and OBO policies on design and engineering to incorporate climate hazards.

In 2024, all bureaus will be directed to review the policies they own in the Foreign Affairs Manual (FAM) and the Foreign Affairs Handbook to identify if any updates can or should be made to incorporate climate risk, adaptation, and/or resilience. As an example, the Bureau of Information Resource Management (IRM) is reviewing several programs and processes, including the IRM-led Enterprise Cyber Risk Governance program, its Disaster Recovery and Contingency Planning processes, and its Risk Assessment methodology, for opportunities to better utilize and incorporate climate-risk information and mitigate risk.

Policies to be reviewed:

- Building Design and Maintenance Policies (for domestic); Procurement Policies; IT Policies; Medical Policies; Functional and Regional Bureau Guidance for Foreign Assistance; Emergency procedures.
- Specific ones to be reviewed include: IT (5 FAM 300, 5 FAM 900, 5 FAM 150, 5 FAM 860, 5 FAM 1680); foreign assistance (18 FAM 301.4); and medical (15 FAM 140, 16 FAM 600, 16 FAM 740, 16 FAM 800).

Nature based solutions: The agency includes nature-based solutions as part of its design and engineering processes, including requiring native plants where possible and evaluating solutions such as onsite wetlands for wastewater treatment. Where possible, the Department uses low-impact alternatives for stormwater collection and management. The Department largely relies on the Guiding Principles for Sustainable Federal Buildings for our internal design requirements, but externally, we use the LEED certification process to ensure that nature-based solutions are accounted for.

On the policy side, the 2022 U.S. Global Water Strategy's third strategic objective, "improving climate-resilient conservation and management of freshwater resources and associated ecosystems," emphasizes nature-based solutions to mitigate climate adaptation risks including flood and drought prevention and maximizes benefits for groundwater recharge and water storage, reduction of pollutants, and the potential for carbon sequestration.

Environmental Justice: The Department continually reviews siting and operational decisions to avoid negative downstream impacts to our neighbors. The Department will evaluate how to further incorporate environmental justice into agency-wide planning and processes.

The agency Environmental Justice official sits in OES, a co-drafter of this plan.

Through its Climate Adaptation Plan, the Department is also able to advance environmental justice as part of its mission, consistent with Executive Order 14008 and with EO 14096 on *Revitalizing Our Nation's Commitment to Environmental Justice for All*. As the Department implements its Climate Adaptation Plan to increase the resilience of its facilities and operations, the agency shall, as appropriate and consistent with applicable law: address disproportionate

and adverse human health and environmental effects (including risks) and hazards of Federal activities, including those related to climate change and cumulative impacts of environmental and other burdens on communities with environmental justice concerns; and provide opportunities for the meaningful engagement of persons and communities with environmental justice concerns who are potentially affected by Federal activities.

In addition, as a member of the White House Environmental Justice Interagency Council, the Department received recommendations on Climate Planning, Preparedness, Response, Recovery and Impacts from the White House Environmental Justice Advisory Council (WHEJAC). The Department is reviewing the recommendations and, as appropriate and to the maximum extent permitted by law, will take steps to address the WHEJAC's recommendations.

The Department's adaptation international policy efforts, in support of PREPARE, focus on addressing long-standing gaps in adaptation that disproportionately affect women, youth, Indigenous Peoples, and low income and marginalized groups that have historically been excluded from adaptation planning and action, yet often face the greatest risks. Additionally, OES and the Secretary's Office of Global Women's Issues (S/GWI) have developed agency resources to integrate gender and youth considerations in public outreach, programming, and policy as guided by the 2023 U.S. Strategy to Respond to the Effects of Climate Change on Women. For example, the Women in Water Diplomacy initiative empowers women to meaningfully participate at all levels in the development of water and climate adaptation related policy and diplomacy. The NexGen program engages the next generation of young leaders to lead on water and climate adaptation solutions. S/GWI's Innovation Station initiative amplifies the voices and best practices of women and girls developing climate adaptation solutions.

Tribal nations: The Department has engaged with tribal nations as part of its equity efforts in procurement, and also engages with tribal nations as part of climate policy efforts.

Policy: U.S. Government principals meet with Tribal Nations and international Indigenous peoples representatives in round-table style discussions at Conferences of the Parties (COPs) to

discuss climate change related issues with them directly. These meetings have taken place for the past three years, and between the meetings, there have been follow-up efforts toward this vision through collaborative inter-agency work across the Executive Branch, regular and meaningful Tribal-Federal engagement, and by fostering an all-of-government approach in meeting treaty and trust obligations to Tribes.

Cultural Affairs: Through its entire range of in-bound exchange programs, the Bureau of Educational and Cultural Affairs (ECA) engages with representatives of the Tribal Nations on issues of high importance to their communities, including environmental protection and climate change. ECA has prioritized academic exchange program recruitment from – and hosting by – Tribal Colleges to allow Americans from these colleges to study or teach abroad and international exchange participants to be hosted at the colleges.

Co-benefits of Adaptation (Buildings): The Department does not have formal policies for climate mitigation for buildings and operations. Domestically, the A Bureau is focused on deferred maintenance and lifecycle building maintenance. Overseas, actions that support both mitigation and adaptation, such as installing onsite solar arrays, are mostly done for financial reasons and/or to ensure continuity of operations in outages of electrical grids.

Foreign assistance, diplomatic engagement: An example of co-benefits in diplomatic engagement is the Energy and Mineral Governance Program, which builds foreign government technical capacity to oversee power sectors to support the transition to an equitable, clean, and resilient energy future. Power sector support can reduce emissions while improving adaptative capability. Though the Department carefully reviews non-“climate” programs for climate adaptation and mitigation co-benefits, there is no structured process for reviewing mitigation projects to incorporate adaptation principles or vice versa, beyond the standard operating procedures for all Department programming.

3B.4. Climate-Smart Supply Chains and Procurement

In 2022, the Department's Office of the Procurement Executive led an initial analysis of major supply chains, which includes local supplies (food, water, fuel), IT equipment, construction supplies, and medical supplies, using GSA's Framework for Managing Climate Risks to Federal Agency Supply Chains. The framework uses transactional volume, global operational focus, global manufacturing footprint, and disruption factor to assess vulnerabilities. Based on this analysis, heat stress, drought, and flooding were identified as the most potentially impactful climate hazards to the Department's supply chains, particularly in IT and construction.

By February 2025, the Department will identify mission-critical and mission-dependent supplies and services procured through GSA and provide a list to GSA to formally partner to address climate-related vulnerabilities to the Department's supply chains. The Department will address its vulnerabilities to climate change, as well as extreme weather incidents, at the order level and GSA will determine if opportunities exist to address vulnerabilities in contract vehicles.

In response to Executive Orders 13990, 14008 and 14057, A Bureau Office of the Procurement Executive is monitoring two Federal Acquisition Regulations under review that are relevant to climate change: 2021-015 and 2021-016. A/OPE plans to issue guidance and best practices that promote sustainable procurement strategies through acquisition planning, source selection, climate supply chain risk management and contract administration, and as further guidance is issued through the aforementioned pending FAR cases. For example, A/OPE is planning to issue new policies in FY24 that promote (1) minimizing the use of single-use plastics in support of food service operations at diplomatic facilities; and (2) sustainability in all overseas procurements.

The Department has also updated its Acquisition Plan templates to promote environmental considerations per FAR 23.103, which apply to all procurements over the micro-purchase threshold. As a result, climate hazard risk is addressed for all procurements over $10,000 at the Department. Furthermore, the Acquisition Plan template for purchases over $5 million explicitly requires Contracting Officers to address the applicability of an environmental

assessment or environmental impact statement, and the proposed resolution of environmental issues, all of which are relevant to climate hazard risks to critical supplies and services. Individual bureaus are employing various strategies to mitigate supply chain issues, which may or may not be caused by climate hazards. OBO partners with contractors in assessing risks to construction materials that will impact our construction schedules. Construction equipment and materials that cannot be procured locally, such as major electrical and mechanical building equipment, may be susceptible to market driven supply chain risks. OBO does consider and employ mitigation strategies, such as including longer lead times.

In addition, the Department is also assessing and developing strategies to the below supply chains and services:

Table 11: Department Assessment and Strategies of Supply Chains and Services

At risk supplies/services	Outline Actions to Address Hazard(s)	Identify Progress Towards Addressing Hazard(s)
Climate hazards may impact the Department's ability to ship critical supplies to locations, depending on the method of transportation.	Identify major transportation contractors and review alternative plans for shipping in high traffic/high risk areas (e.g. Ft. Lauderdale, East Asia and the Pacific, etc.); formally partner with GSA by providing a list of the mission-critical products and services and address their vulnerabilities to climate change, as well as extreme weather incidents, at the order level and GSA will determine if opportunities exist to address vulnerabilities in contract vehicles.	The Department has updated its Acquisition Plan templates to promote environmental considerations per FAR 23.103, which apply to all procurements over the micro-purchase threshold.
Construction materials may be delayed in their production or transport to overseas locations due to climate hazards.	Increase materials procured locally when possible; if not available, identify risk mitigation plans in contracts and build in longer lead times for materials to account for potential delays.	All new construction is required to meet U.S. Green Buildings Council LEED standards, which encourages the use of local supplies and energy and water efficiency.

At risk supplies/services	Outline Actions to Address Hazard(s)	Identify Progress Towards Addressing Hazard(s)
Consular supplies, such as visa foils, passport book stock, and passport card stock shipments may be delayed due to transportation or production issues caused by severe weather.	Develop foil-less/digital visas to eliminate supply chain issues; centrally track and provide strict guidance on maintaining stock of passport books and card stock; include mitigation processes in contracts.	Consular Affairs is developing foil-less/digital visas (timing TBD); expanding digital services for American citizens and international travelers when and where possible; contracts currently include predetermined monthly orders to maintain reserve and stock.
Unstable or insecure electrical grids	For both domestic and overseas operations, local energy resources and infrastructure can be significantly impacted by climate and natural hazards. The Department is making investments in renewable energy and battery systems for embassies, consulates, and residences, particularly in locations where the local energy grid is under stress, either from climate hazards or other reasons.	57 posts overseas have onsite solar arrays and four have onsite batteries. The Department is receiving bids for an onsite solar array at a critical data center in Maryland and is planning to release another notice of opportunity for FSI.

At risk supplies/services	Outline Actions to Address Hazard(s)	Identify Progress Towards Addressing Hazard(s)
Local Fuel for Vehicles	Several overseas diplomatic posts are installing electric vehicle charging infrastructure and procuring unarmored electric vehicles to mitigate dependence on local fuel and potential disruptions due to climate or natural hazards.	The Department analyzed overseas posts and found that 50% are either ready or close to being ready to electrify their fleets, based on electrical grid reliability, availability of maintenance support, and more factors. The Department released policy and SOPs to support posts in procuring EVs.

3B.5. Climate Informed Funding to External Parties

The Department has made significant strides in supporting Administration goals to scale up U.S. government-wide international public adaptation finance, including through interagency agreements, grants, and voluntary contributions that are attributable to the overall climate directive for foreign assistance funds. With USAID, the Department co-leads the implementation of PREPARE, which seeks to help more than half a billion people in developing countries adapt to and manage the impacts of climate change by 2030. Twenty federal agencies now work together to implement the PREPARE Action Plan. PREPARE includes three pillars: (1) strengthen climate information services and early warning systems to equip people and institutions with the information they need to make sound decisions and take effective actions; (2) mainstream adaptation into policies, programs, and budgets focusing on the impacts of climate change on food security, water, health, and infrastructure; and (3) unlock finance to support national, sub-national, and local climate adaptation action. The structure of PREPARE is aligned with the UAE

Framework for Global Climate Resilience, adopted at the UN Climate Change Conference in 2023 to guide achievement of the Paris Agreement's global goal on adaptation.

Bureaus have also increasingly reviewed grant and foreign assistance announcements and requirements to ensure relevant grants and foreign assistance (FA) include climate risk and/or adaptation considerations. This helps ensure program goals are achieved in the face of climate change impacts, realize adaptation co-benefits of existing programs, and address the impacts of climate change Bureaus are seeing on their missions. For example, the Bureau of Political-Military Affairs works with select national authorities to pilot how to integrate climate and environmental considerations into national demining strategies to develop sector-wide guidance. Populations living in areas contaminated with landmines and unexploded ordnance are already among the poorest, most marginalized, and vulnerable communities in the world. Further, the Bureau of Population, Refugees, and Migration (PRM) is currently supporting a UNHCR fund that works with refugees and local communities to improve climate adaptation and resilience and to foster ideas and communication. PRM is also in the process of designing grants to work with local communities to prioritize innovative financing options for climate change and human mobility programs.

Regional bureaus have dedicated significant effort to climate-informed funding opportunities and Bureau Strategic Plans. Bureaus have begun iteratively evaluating foreign assistance requests, levels, and programs to ensure consideration of partners' desire to enhance resilience to climate impacts, transition to clean energy, and develop sustainable landscapes within program design. Moreover, multiple bureaus are considering modifying the project risk assessment templates to include risks to projects posed by extreme climate events (storms, flooding, heat, etc.) and include necessary risk mitigation measures. Given the high vulnerability of many nations to climate change and that many communities are severely under-resourced, these considerations will increasingly be built into the design of many of Department and USAID programs.

Additionally, the Department aims to build on progress to develop workforce-wide training and adaptation-specific initiatives, including working with disadvantaged communities and engaging

with community-based organizations best suited to provide locally informed solutions. This helps to ensure that programming for vulnerable communities and people, including by prioritizing local solutions, is central to the Department's foreign assistance programs. Regional Climate Officers, a new role in many Bureaus, work with country desks and embassies to increase focus and funding for climate adaptation and resilience in country/local communities. Working together with Environment, Science, Technology, and Health (ESTH) officers, Regional Climate Officers have helped expand the capacity for the Department to reach disadvantaged communities for climate adaptation and/or resilience. For example, the International Boundary and Water Commission promotes climate adaptation and resilience and is also included in the Justice40 Initiative, which was established by EO 14008, and sets a goal that 40 percent of the overall benefits of certain Federal climate and other investments flow to disadvantaged communities that are marginalized by underinvestment and overburdened by pollution.

3C. Climate Training and Capacity Building for a Climate Informed Workforce

The Administration has directed that climate be an essential element of United States foreign policy and national security. In response, the Department has to dual-track our climate efforts on human capital and training for both internal (operations and management) and external (diplomacy and policy).

Training:

The Department has three broad categories of training and development needs.

1. General climate and sustainability literacy training on a variety of topics, including adaptation, for all staff.
2. Targeted training for personnel with direct responsibility or opportunity to limit the Department's carbon footprint and/or realize our internal adaptation and resilience efforts.

3. Targeted training for our climate policy action officers, who integrate U.S. climate goals into the conduct of foreign policy.

The Department has made significant strides in climate and sustainability related training and other workforce development initiatives in keeping with our 2021 Climate Adaptation Plan goals. The Department's training organization, the Foreign Service Institute (FSI) is in the process of standing up a climate and sustainability program within the School of Professional and Area Studies using new, recurring funding. Other progress includes:

- Co-chair a Climate Literacy and Workforce Working Group with M/SS since 2021 to drive progress, and maintained an online resource hub of information for management professionals on sustainable operations;
- Completed training needs assessments focused on mid-level climate policy action officers (FO-03 to 01 and GS 13-15) in 2022;
- Created two 40-hour proficiency-level courses that are open to the full workforce, including locally employed staff and interagency personnel, but focused on climate policy practitioners. These courses are designed to equip foreign affairs professionals with both literacy and proficiency in climate science and climate and sustainability policy in order to achieve mission success and advance U.S. climate goals:
    - Climate Tradecraft, focused on tools and actions that can be undertaken on mitigation, adaptation, finance and communications; and
    - Climate Diplomacy, focused on the basics of climate science; the drivers of ecological destruction; climate negotiations; and climate communications.
- Created six advanced 2-day workshops for policy practitioners to begin in 2024: Climate Ambition, Climate Communications, Climate Finance, Climate Resilience, Climate Security, and Climate Tech. These new workshops augment previously existing climate-related modules in the ESTH Tradecraft course and other specialized courses, such as several energy policy courses, emerging technology, commercial tradecraft and Biotechnology and Global Challenges, which stresses the importance of agricultural

innovation to respond to the climate crisis and enable farmers and ranchers to help mitigate greenhouse gas emissions;

- Delivered a workshop on U.S. legislation related to clean energy and climate policy;
- Integrated climate and sustainability training throughout management coursework, including procurement, human resources, and General Services Officer training;
- Included a module on the gender-climate nexus in FSI's flagship gender equality course, Promoting Gender Equality to Advance Foreign Policy. The module discusses both disproportionate impacts of the effects of climate change on women and girls and the role of women and girls as climate leaders.

Figure 5 Former Special Presidential Envoy for Climate John Kerry speaks to participants in a new Climate Tradecraft course.

Similarly, individual bureaus and posts train personnel for specialized and/or localized climate concerns. Examples include:

- OES maintains Climate@State, an internal hub for information on climate policy and data, including a range of capacity building tools. For example, a "Climate 101" video series providing short lectures from top State Department experts on topics including Climate Science, International Climate Negotiations, and Adaptation and Resilience has received over 1,500 views from Department Staff. Climate@State's interactive Climate Data Hub has a suite of country and region-specific tools developed via the Climate Data

Campaign, and a Climate Toolkit with extensive resources for climate action officers. Information from these and other tools are shared regularly with several hundred climate-focused officers as part of monthly "Climate Leads" calls convened by OES and USAID.

- The Bureau of Consular Affairs (CA) trains staff on heightened awareness of the needs of customers waiting outdoors for services in high heat or extreme cold;
- The Office of Crisis Management and Strategy (CMS) trains Department personnel on how to effectively prepare for and respond to natural hazards, climate events, and disease outbreaks. Mechanisms include event specific contingency planning, Emergency Action Committee reporting training, and interagency coordination;
- Embassy Canberra (Australia) coordinates an annual review in advance of the wildfire/brushfire season and updates emergency plans, disseminates information to the Embassy community, and holds training;
- OES hosts tabletop exercises for ESTH officers on how to meaningfully engage countries and multilateral institutions on climate adaptation and sustainability issues; and
- The Bureau of Population, Refugees, and Migration's (PRM) educates its staff on how climate change impacts the work of our partners and populations of concern.

Workforce:

The Department does not have a singular approach to climate adaptation and sustainability staffing. At the initiative of the Special Envoy for Climate Change (SPEC), the Department created and staffed twenty mid-level "Climate Officer" foreign service positions (14 overseas, 6 domestic) beginning in 2022. The Bureau of Global Talent Management (GTM) established professional development opportunities focused on critical mission areas using new training float positions authorized under the FY23 NDAA, to include 14 opportunities under the Climate, Environment, and Energy priority area. Additionally, in January 2024, GTM launched a lateral entry pilot program to provide mid-career entry into the Foreign Service for candidates with specialized skills and expertise in climate, environment, and energy.

Agency Climate Training Efforts

Identify the percentage of the agency's Federal staff that have taken a 60+ minute introductory climate training course (e.g., Climate 101).

In FY24, FSI plans to design and deliver a Climate 101 training offering. As of January 2024, 147 mid-level foreign affairs professionals, including 100% of Regional Climate Officers, have completed one of the Department's two 40+ hour, proficiency-level climate trainings.

Climate@State's "Climate 101" video series have received over 1,500 views from Department Staff as of the release of this report. Climate@State also contains an interactive Climate Data Hub with a suite of country and region-specific tools developed via the Climate Data Campaign, and a Climate Toolkit with extensive resources for climate action officers. Additionally, FSI manages a "Climate Hub" of online resources on sustainability.

Detail the percent of the agency's senior leadership (e.g., Sec, Dep Sec, SES, Directors, Branch Chiefs, etc.) that have completed climate adaptation training.

FSI's Leadership and Management School is working to include a climate discussion in the Spring 2024 Chief of Mission (COM) courses. The 2024 Chief of Mission Conference will host a breakout session on climate issues. Several Deputy Chiefs of Mission have participated in FSI's Climate Diplomacy course. Additionally, FSI's Climate 101 course will be available to senior leadership.

Detail the percent of budget officials that have received climate adaptation related training.

Since Jan 1, 2023, 32 students have taken Financial Management Overseas (PA211), which includes climate adaptation related training. Additional opportunities available for budget officials with climate adaptation related training include Managerial Essentials for Overseas MGT (MTT101) - 280 students, Overseas Management Officer Training (PA243) - 55 students, and Overseas Facilities Management (PA525) - 53 students. Climate is not integrated into training provided to domestic budget officials.

Detail the percent acquisition officials that have received climate adaptation related training.

Since Jan 1, 2023, 49 students have taken GSO - Acquisitions (PA221ACQ), which includes climate adaptation related training. Additional opportunities available for acquisition officials with climate adaptation related training include General Services Operations (PA221RE) (52 students) and PA243 - Overseas Management Officer Training (55 students).

Since Jan 1, 2023, 549 people have taken a 120-minute green procurement course, produced in partnership with GSA, which includes adaptation content. The Office of the Procurement Executive's Training division will continue to provide one or more sustainable procurement courses to its acquisition workforce per year including the broader population of global acquisition officials (e.g., Contracting Officers, General Service Officers, Contracting Officer's Representatives, Program/Project Managers).

Detail additional efforts the agency is taking to develop a climate informed workforce.

See section 3C for efforts done to date. FSI plans to create additional training in FY24 to expand the suite of climate and sustainability offerings and has contracted a consulting firm to deliver a current state and future-visioning report on climate and sustainability training that will help inform onward training. In FY24, FSI will deliver a series of two-day workshops on climate finance, security, technology, communications, ambition, and resilience and FSI/MTT plans to deliver a dedicated Green Teams course.

Agency Capacity

Detail the number of full time Federal staff (FTE) across the agency that have tasks relevant to climate adaptation in their job description. Detail if the agency has contracting staff with tasks relevant to climate adaptation in their job description. Additionally, the agency may include information on climate adaptation staffing approaches in the narrative.

Seven position descriptions have the phrases "climate adaptation," "climate resilience," "climate resiliency," "natural hazards," or "climate hazards" in them. However, there are many civil

servants and foreign service officers in regional and functional bureaus and overseas posts who regularly engage in climate issues, including adaptation and resilience, but that may not be captured in their official titles and/or position descriptions.

The Department employs contractors who work on climate-adaptation related tasks. However, the Department does not track its contractors in a way that would allow for a count of the total number of individuals in such positions.

3D. Summary of Major Milestones

Table 12: Summary of Milestones Resulting from Addressing Risks in the Implementation Plan

Section of the Implementation Plan	Description of Milestone	Climate Risk Addressed	Indicators for success
Addressing Natural Hazard Impacts on and Exposure to Federal Buildings	2024 – Share exposure data with contractors. 2025-2027 – Annually complete three SAMPs for domestic properties	All Hazards	Number of SAMPs that include specific climate risk information and number of SAMPs completed.
Addressing Natural Hazard Impacts on and Exposures to Federal Employees	Release new natural hazard custom annex exemplars to diplomatic posts to integrate into Emergency Action Plans.	Earthquake*, Flood, Landslide*, Tropical Cyclone, Wildfire, Tsunami*, Volcanic Eruption* *Where * indicates a natural hazard for which an exemplar is being created*	Number of posts at moderate to high risk for particular hazard integrating new exemplars into Emergency Action Plan.

Section of the Implementation Plan	Description of Milestone	Climate Risk Addressed	Indicators for success
Addressing Climate Hazard Impacts on and Exposures to Federal Employees	Update ORION to include natural hazard exposure and/or risk.	TBD (the Department is considering data availability and scope in 2024)	Release of new dashboard feature highlighting post specific natural hazard exposure and/or risk.
Climate Risk in Budget and Planning	Evaluate developing an agency standard and guidance for how bureaus and Missions should assess, include or prioritize climate risks in the budget and planning process, as well as how the risks should be included in routine cost benefit analysis.	All Hazards	Issue specific guidance on assessing and incorporating climate risk into budget requests.
Climate Risk in Policy and Programs	Department-wide FAM and FAH policy review for relevant climate risk and resilience updates.	All Hazards	Number of policies updated referencing climate risk, resilience, or adaptation activities.

Section of the Implementation Plan	Description of Milestone	Climate Risk Addressed	Indicators for success
Climate-Smart Supply Chains and Procurement	Identify mission critical and mission dependent supplies and services procured through GSA and provide a list to GSA to formally partner to address climate-related vulnerabilities to the Department's supply chains.	All Hazards	Changes to contracts for mission critical and dependent supply and services that enhance risk mitigation.
Climate Training and Capacity Building	Develop a Climate 101 Course for all Department personnel.	All Hazards (will encompass both mitigation and adaptation)	Number of personnel who have taken course.

Section 4: Demonstrating Progress

4A. Measuring Progress

Key Performance Indicator: Climate Adaptation and Resilience Objectives and Performance Measures are Incorporated in Agency Program Planning and Budgeting by 2027.

Table 13: Climate Adaptation and Resilience Objectives and Performance Measures Incorporated in Agency Program Planning and Budgeting by 2027

Section of the CAP	Process Metric	Agency Response
3A –Addressing Climate Hazard Impacts and Exposure	Step 1: Agency has an implementation plan for 2024 that connects climate hazard impacts and exposures to discrete actions that must be taken. (Y/N/Partially) Step 2: Agency has a list of discrete actions that will be taken through 2027 as part of their implementation plan. (Y/N/Partially)	Step 1: Yes, through the development of this plan the Department has a discrete list of activities to take in 2024. Step 2: Partially, the Department has a list of some actions that will be taken through 2027. The Department notes that this list of actions will need to be expanded as progress is made on 2024 actions.

Section of the CAP	Process Metric	Agency Response
3B.1 – Accounting for Climate Risk in Decision-making	Agency has an established method of including results of climate hazard risk exposure assessments into planning and decision-making processes. (Y/N/Partially)	Partially, the Department's Joint Strategic Plan (JSP) includes climate adaptation, for both policy and operations, which are further espoused in Agency Priority Goals. Currently, most incorporation of risk assessment into planning and decision-making is done at the bureau level.
3B.2 – Incorporating Climate Risk Assessment into Budget Planning	Agency has an agency-wide process and/or tools that incorporate climate risk into planning and budget decisions. (Y/N/Partially)	Partially, the Bureau of Budget and Planning (BP) directs bureaus and Missions to explicitly include climate and sustainability budget needs in their annual resource requests.
3B.5 – Climate Informed Funding to External Parties	Step 1: By July 2025, agency will identify grants that can include consideration and/or evaluation of climate risk. Step 2: Agency modernizes all applicable funding announcements/grants to include a requirement for the grantee to consider climate hazard exposures. (Y/N/Partially)	Step 1: Yes, the agency commits to identifying grants that can include considerations and/or evaluation of climate risk by July 2025. Step 2: Partially, in/by 2027 the agency will modernize all applicable funding announcements to include a requirement for the grantee to consider climate exposures.

Key Performance Indicator: Data Management Systems and Analytical Tools are Updated to Incorporate Relevant Climate Change Information by 2027.

Table 14: Climate Adaptation and Resilience Objectives and Performance Measures Data Management Systems

Section of the CAP	Process Metric	Agency Response
3A –Addressing Climate Hazard Impacts and Exposure	Agency has identified the information systems that need to incorporate climate change data and information, and will incorporate climate change information into those systems by 2027. (Y/N/Partially)	Yes

Key Performance Indicator: Agency CAPs Address Multiple Climate Hazard Impacts and Other Stressors, and Demonstrate Nature-Based Solutions, Equitable Approaches, and Mitigation Co-Benefits to Adaptation and Resilience Objectives.

Table 15: Climate Adaptation and Resilience Objectives and Performance Measures Multiple Climate Hazard Impacts

Section of the CAP	Process Metric	Agency Response
3B.3 – Incorporating Climate Risk into Policy and Programs	By July 2025, 100% of climate adaptation and resilience policies have been reviewed and revised to (as relevant) incorporate nature-based solutions, mitigation co-benefits, and equity principles. (Y/N/Partially)	Partially. The Department does not have explicit policies for adaptation and resilience for management and operations, but will review existing design standards, budget and planning processes, and programs to incorporate these principles by 2025.

Key Performance Indicator: Federal Assets and Supply Chains are Evaluated for Risk to Climate Hazards and Other Stressors Through Existing Protocols and/or the Development of New Protocols; Response Protocols for Extreme Events are Updated by 2027.

Table 16: Climate Adaptation and Resilience Objectives and Performance Measures Existing and New Protocols

Section of the CAP	Process Metric	Agency Response
3B.4 – Climate-Smart Supply Chains and Procurement	Step 1: Agency has assessed climate exposure to its top 5 most mission-critical supply chains. (Y/N/Partially) Step 2: By July 2026, agency has assessed services and established a plan for addressing/overcoming disruption from climate hazards. (Y/N/Partially)	Step 1: Yes Step 2: Partially. The Department needs to develop a more granular plan.

Section of the CAP	Process Metric	Agency Response
	Agency has identified priorities, developed strategies, and established goals based on the assessment of climate hazard risks to critical supplies and services. (Y/N/Partially)	No. By February 2025, the Department will identify mission-critical and mission-dependent supplies and services procured through GSA and provide a list to GSA to formally partner to address climate-related vulnerabilities to the Department's supply chains. The Department will address its vulnerabilities to climate change, as well as extreme weather incidents, at the order level and GSA will determine if opportunities exist to address vulnerabilities in contract vehicles.

Key Performance Indicator: By 2027, agency staff are trained in climate adaptation and resilience and related agency protocols and procedures.

Table 17: Climate Adaptation and Resilience Objectives and Performance Measures by Staff Training

Section of the CAP	Process Metric	Agency Response
3C – Climate Training and Capacity Building for a Climate Informed Workforce	Step 1: By December 2024 100% of agency leadership have been briefed on current agency climate adaptation efforts and actions outlined in their 2024 CAP. (Y/N/Partially) Step 2: Does the agency have a Climate 101 training for your workforce? (Y/N/Partially) If yes, what percent of staff have completed the training? Step 3: By July 2025, 100 % employees have completed climate 101 trainings. (Y/N/Partially)	Step 1: Yes Step 2: Partially. FSI is now working to create an introductory Climate 101 training course in FY24 to expand climate literacy more broadly. Step 3: Partially. FSI created a climate and sustainability program in FY23 and has trained 147 mid-level foreign affairs professionals, including Regional Climate Officers, as of January 2024

4B. Adaptation in Action

Narrative:

Progress since the 2021 Agency Climate Adaptation Plan:

Goal 1: Enhancing mobility and remote access for diplomats and citizens. The Department adopted a "Tech for Life" policy under which all U.S. direct-hire employees are provided mobile devices, including laptops and mobile phones, that they take with them as they transfer to new positions at the Department, for the life of the device (3-5 years). More than 24,000 laptops have been distributed through this effort, allowing increased employee mobility and resilience to climate disruptions. To advance mobility and remote access, the Department enabled phone numbers to be tied to employees' Teams accounts so that personnel can be reached in any hoteling space via Teams or phone. The Department will continue working to provide workplace flexibility resources, including a telework toolkit, policy templates, and training.

Goal 2: Emergency preparedness and action assessments and updates: The Department updated the FAH to emphasize existing policy requiring post's Emergency Action Committees (EAC) Chairs to ensure post-specific risks, including those related to climate hazards, are identified and addressed in Post Emergency Action Plans. Similarly, existing policy outlining Emergency Action Committee responsibilities was updated to emphasize the existing requirements for Emergency Action Committees to identify, plan for, and document post-specific risks, including those related to climate hazards in their Emergency Action Plans. OBO assessed the climate resilience of Emergency Action Plans and found in 2022 that 25% of all posts do not have a custom annex for at least one acute onset climate or natural hazard to which they have moderate to high exposure. The Department is working to address this gap by developing response plan exemplars for hazards to include earthquake, tsunami, flooding, landslide, tropical cyclone, volcanic eruptions, and wildfires. The Department will share these exemplars with overseas posts to use when developing their own post-specific response plans, which should be incorporated in their Emergency Action Plan.

Goal 3: Program building to support climate-ready sites and facilities: Domestically, A Bureau has used Strategic Asset Management Plans to develop long-term plans for Department facilities, taking into consideration sustainability and resilience. Overseas, the Department is working to better understand its exposure to natural and climate hazards, including volcanoes and wildland fire, and has developed maps/indices that will help us identify our level of exposure to these hazards.

Goal 4: Supply chain and procurement evaluation: A Bureau's of the Procurement Executive completed GSA's Supply Chain Climate Risk Assessment across four categories including local supplies (such as food, fuel, and water), IT equipment, medical supplies, and construction materials. The Department found that IT and construction materials have the highest potential for climate-related disruption due to the projected impacts of heat and water stress in East Asia, where much of the supply is manufactured. The Department is working to apply these findings through the Center for Acquisition Excellence and coordination with A Bureau's Office of Logistics Management.

Goal 5: Improving local infrastructure through host country engagement: The Department is working to improve infrastructure in host countries by using eco-diplomacy to share best practices, establish joint projects to improve resilience, and demonstrate U.S. climate leadership. The Deputy Chief Sustainability Officer in M/SS chairs the Network for Sustainable Foreign Ministries to further create collaboration and engagement opportunities and oversees the Greening Diplomacy Initiative (GDI) platform to share best practices from the more than 130 Green Teams at diplomatic posts worldwide on engagement with host communities on resilience and sustainability. M/SS partnered with the White House to launch GDI, a community of practice to promote engagement with national governments working to increase the sustainability and resilience of their operations. Additionally, implementation of the President's Emergency Plan for Adaptation and Resilience (PREPARE) is ongoing and will support infrastructure improvements in many places where the Department operates.

Appendices

Appendix A: Risk Assessment Data

The risk assessment done in Section 2 of this plan uses the following data:

Buildings

Buildings data comes from the Department's internal Bureau of Administration Office of Real Property Management real property tracking system. The dataset was generated in October 2023 and includes properties under Departmental custody and control, properties leased from commercial and other non-federal entities, properties occupied by State and owned by GSA or other non-Department agency, and XO locations. XO locations are properties where the Department has a limited personnel presence on another entity's facility and no administrative authority: for example, a domestic university where a Foreign Service Officer is completing a tour.

Personnel

Personnel data comes from the Office of Personnel Management's (OPM) non-public dataset of all personnel employed by the federal government that was provided in 2023. The data contains a number of adjustments, including exclusion of military or intelligence agency personnel, aggregation of personnel data to the county level, and suppression of personnel data for duty stations of less than 5 personnel. Despite these adjustments, this data is still useful for screening-level exposure assessments to provide a sense of key areas of climate hazard exposure for agency personnel.

Climate Hazards

The climate data used in the risk assessment comes from the data in Climate Mapping for Resilience and Adaptation (CMRA) Assessment Tool. When agency climate adaptation plans

were initiated in 2023, CMRA data included climate data prepared for NCA4. Additional details on this data can be found on the CMRA Assessment Tool Data Sources page. Due to limited data availability, exposure analyses using the Federal Mapping App are largely limited to the contiguous United States (CONUS). Additional information regarding Alaska, Hawai'i, U.S. Territories, and marine environments has been included as available.

Appendix B: Overseas Climate Adaptation Plan

Maps, and Graphs for Overseas Facilities and Personnel Exposure to Climate Hazards

Definitions:

Extreme Heat

The DOS International Extreme Heat metric indicates a projected increase in average number of extreme heat days per year compared to present-day data as baseline. Extreme heat days are defined as days where the heat index exceeds the National Weather Service's "extreme danger" threshold of 130°F (including heat and humidity). Mid-Century and Late-Century projections represent the 2065 and 2100 time horizons, respectively (differing from the Federal Climate Mapping for Resilience and Adaptation Application 2050 and 2080). For equivalent comparison, the "Present" metric compares the baseline data with the near-term 2035 time horizon. Note that this metric does not capture sustained periods of extreme heat (heat waves).

Extreme Precipitation

The DOS International Extreme Precipitation metric indicates an area of heavy precipitation (98^{th} percentile ≥ 20mm per Zhang et al. (2011)) with ≥ 1.0 average extreme precipitation days per year and an increasing trend in average extreme precipitation days. Since the dataset is based only on historical data, it does not include projected time horizons but does indicate upward trends based on Mann-Kendall trend tests of 1950-2022 reference data.

Coastal Flooding

The DOS International Coastal Flooding metric indicates a 100-yr flood depth of ≥ 2m. The Coastal Flooding metric is a comprehensive measure of coastal inundation and compares extreme high tide to elevation data and incorporates projected factors including sea level rise and vertical land movement (e.g., land subsidence). Mid-Century and Late-Century projections

represent the 2065 and 2100 time horizons, respectively (differing from the Federal Climate Mapping for Resilience and Adaptation Application 2050 and 2080).

Riverine Flooding

The DOS International Riverine Flooding metric indicates inundation > or equal to 0.5m for the 500-, 100-, and 25-year riverine flood return periods. This data is based on two models (GAR15 and WRI Aqueducts) where we counted any post that was exposed in one or both models. Mid-Century and Late-Century projections represent the 2050 and 2080 time horizons, respectively (aligning with Federal Climate Mapping for Resilience and Adaptation Application time horizons). Note that this metric does not currently account for potential exposure to pluvial (rainfall-induced) flooding.

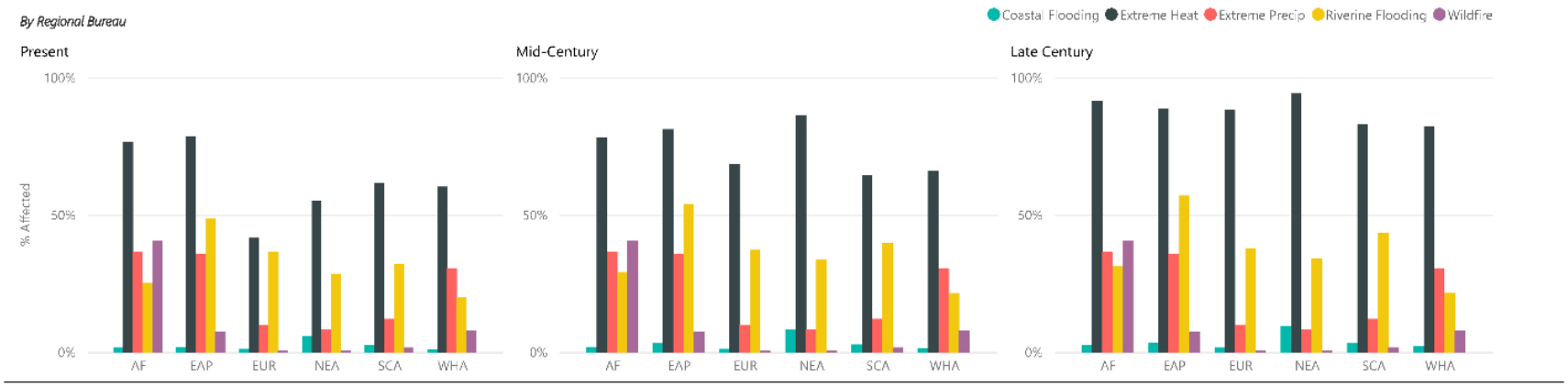
Wildfire

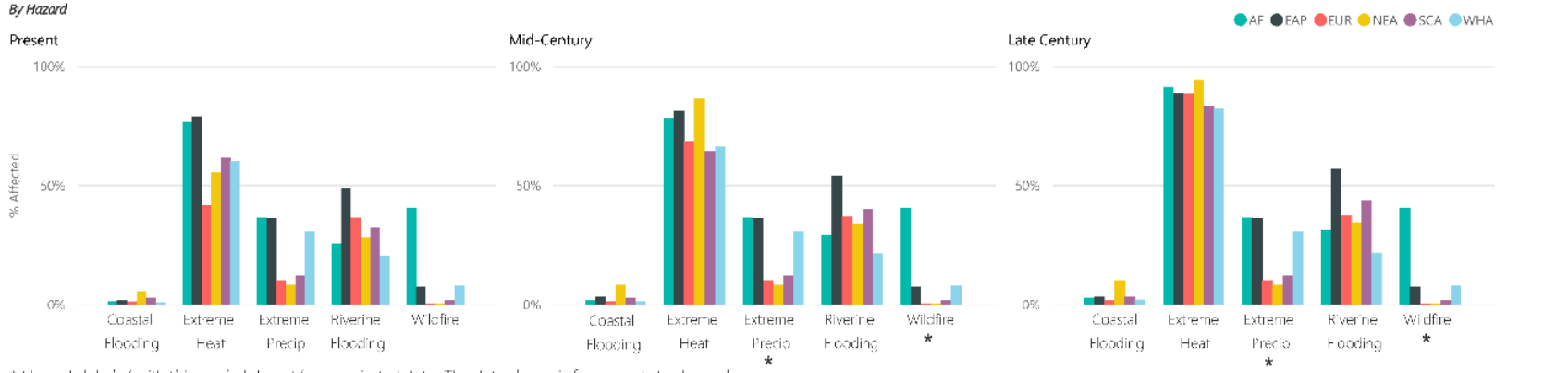
The DOS International Wildfire metric indicates locations at high or very high exposure to structural burning due to wildfires. The internal screening data is based on MODIS active fire data, global biome data, land cover data, and wildland-urban interface data.[24]

[24] Zhang, X., Alexander, L., Hegerl, G. C., Jones, P., Tank, A. K., Peterson, T. C., Trewin, B., & Zwiers, F. W. (2011). Indices for monitoring changes in extremes based on daily temperature and precipitation data. Wiley "Interdisciplinary Reviews: Climate Change, 2(6), 851-870."

Facilities Affected: Present vs. Projected (RCP 8.5)

Department of State (Overseas Facilities) Climate Adaptation Plan

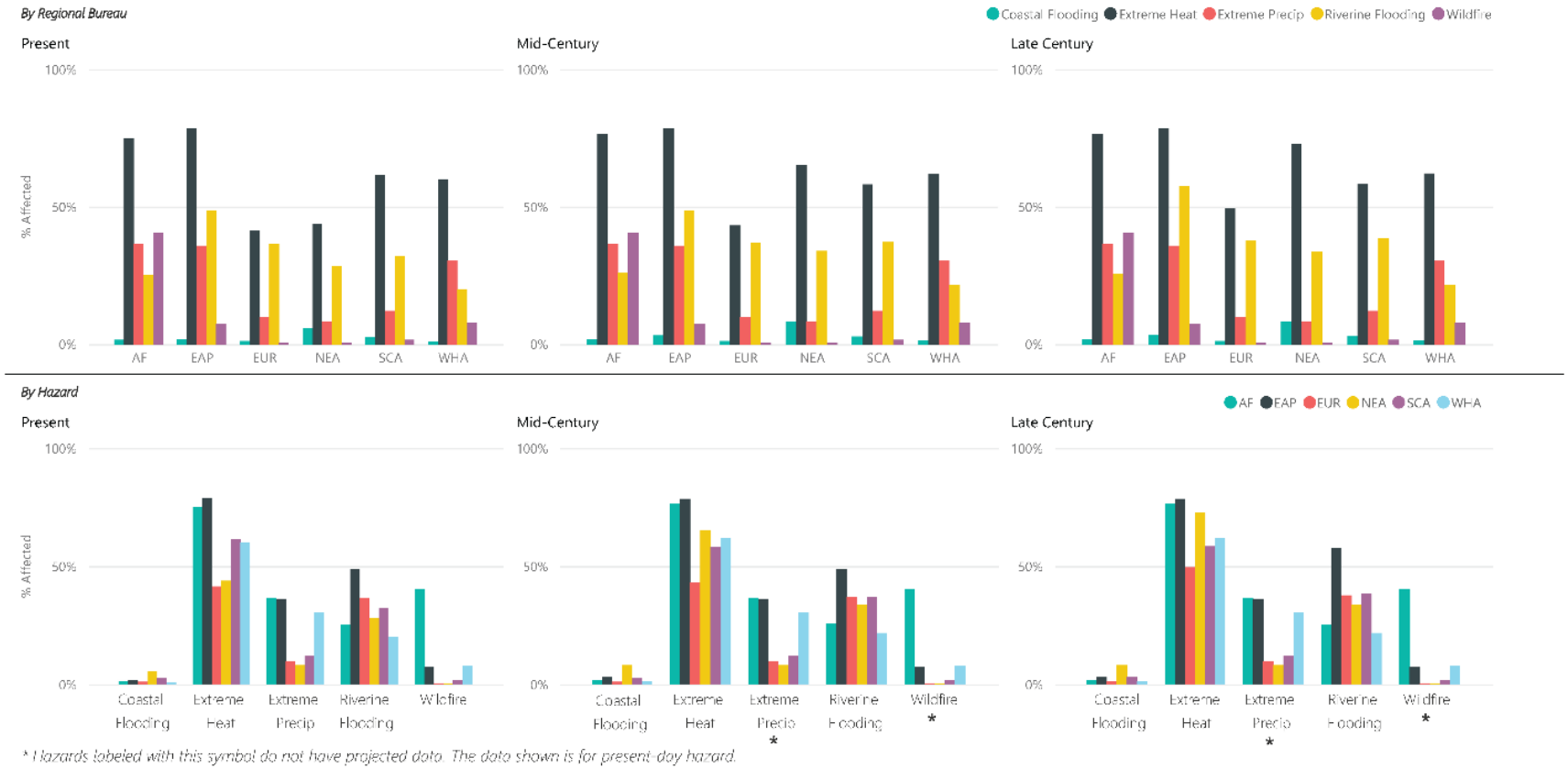




** Hazards labeled with this symbol do not have projected data. The data shown is for present-day hazard.*

Facilities Affected: Present vs. Projected (RCP 4.5)

Department of State (Overseas Facilities) Climate Adaptation Plan



** Hazards labeled with this symbol do not have projected data. The data shown is for present-day hazard.*

Facilities Affected: Present vs. Projected (RCP 4.5)

Department of State (Overseas Facilities) Climate Adaptation Plan

Values	AF	EAP	EUR	NEA	SCA	WHA	Grand Total
Extreme Heat Present (RCP4.5)	75%	79%	42%	44%	61%	60%	60%
Extreme Heat RCP4.5 Mid-Century (2065)	76%	79%	43%	65%	58%	62%	64%
Extreme Heat RCP4.5 Late-Century (2100)	76%	79%	50%	73%	58%	62%	66%
Extreme Precip Present	37%	36%	10%	8%	12%	31%	23%
Coastal Flooding Present	2%	2%	1%	6%	3%	1%	2%
Coastal Flooding RCP4.5 Mid-Century (2065)	2%	3%	1%	8%	3%	1%	3%
Coastal Flooding RCP4.5 Late-Century (2100)	2%	3%	1%	8%	3%	1%	3%
Riverine Flooding Present	25%	49%	37%	28%	32%	20%	31%
Riverine Flooding RCP4.5 Mid-Century (2050)	26%	49%	37%	34%	37%	22%	33%
Riverine Flooding RCP4.5 Late-Century (2080)	25%	58%	38%	34%	39%	22%	35%
Wildfire Present	40%	7%	0%	0%	2%	8%	10%

Facilities Affected: Present vs. Projected (RCP 8.5)

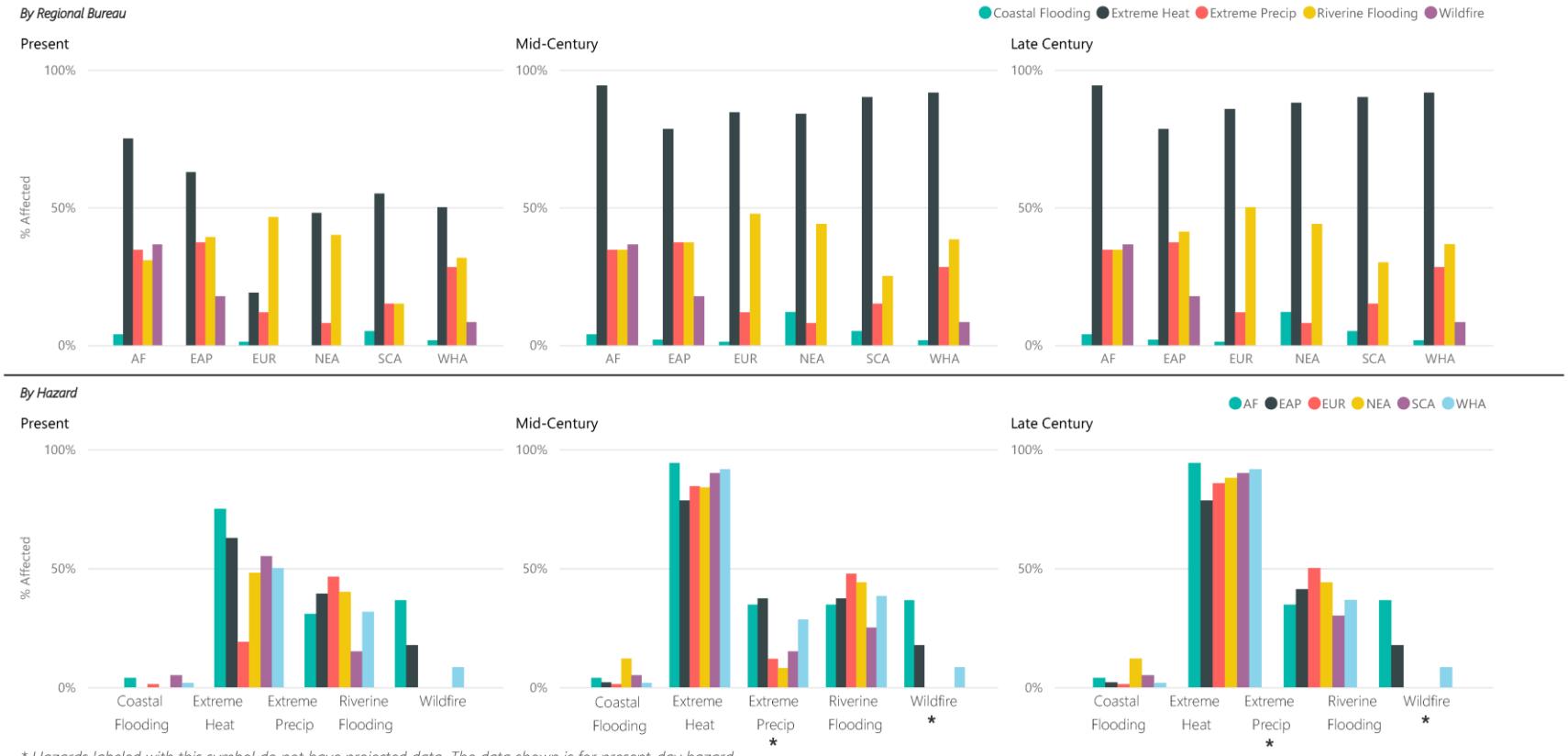
Department of State (Overseas Facilities) Climate Adaptation Plan

Values	AF	EAP	EUR	NEA	SCA	WHA	Grand Total
Extreme Heat Present (RCP8.5)	76%	79%	42%	55%	61%	60%	62%
Extreme Heat RCP8.5 Mid-Century (2065)	78%	81%	68%	86%	64%	66%	74%
Extreme Heat RCP8.5 Late-Century (2100)	91%	89%	88%	94%	83%	82%	88%
Extreme Precip Present	37%	36%	10%	8%	12%	31%	23%
Coastal Flooding Present	2%	2%	1%	6%	3%	1%	2%
Coastal Flooding RCP8.5 Mid-Century (2065)	2%	3%	1%	8%	3%	1%	3%
Coastal Flooding RCP8.5 Late-Century (2100)	3%	3%	2%	10%	3%	2%	4%
Riverine Flooding Present	25%	49%	37%	28%	32%	20%	31%
Riverine Flooding RCP8.5 Mid-Century (2050)	29%	54%	37%	34%	40%	21%	35%
Riverine Flooding RCP8.5 Late-Century (2080)	31%	57%	38%	34%	44%	22%	36%
Wildfire Present	40%	7%	0%	0%	2%	8%	10%

Personnel Affected: Present vs. Projected (RCP 4.5)

Department of State (Overseas Facilities) Climate Adaptation Plan

Represents sum of total personnel count (from F-77 Report of Potential Evacuees) at any affected posts. "Affected post" is defined as any post where the hazard threshold was met either at the primary building (e.g., chancery) or by a weighted average of all facilities.

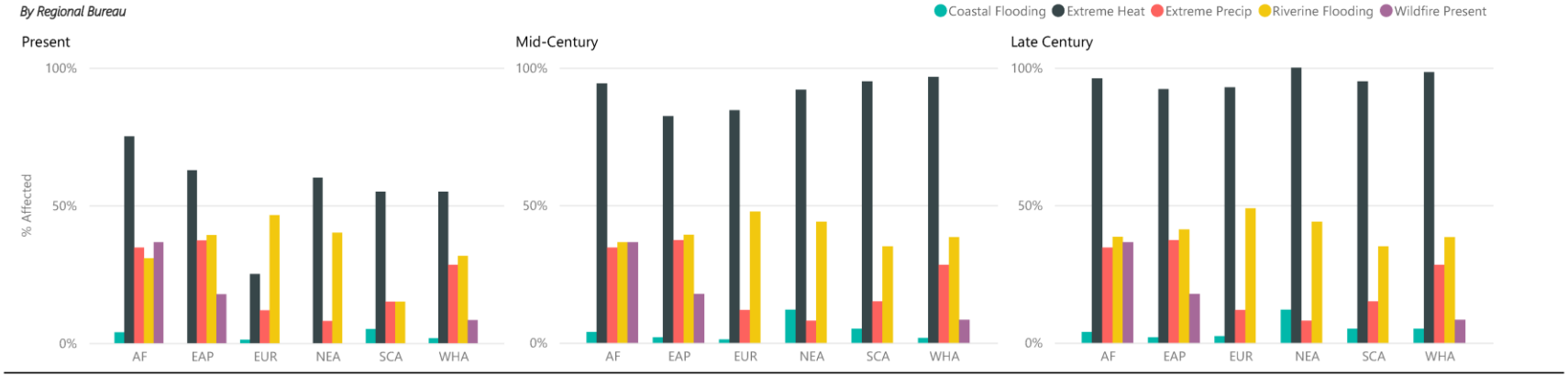


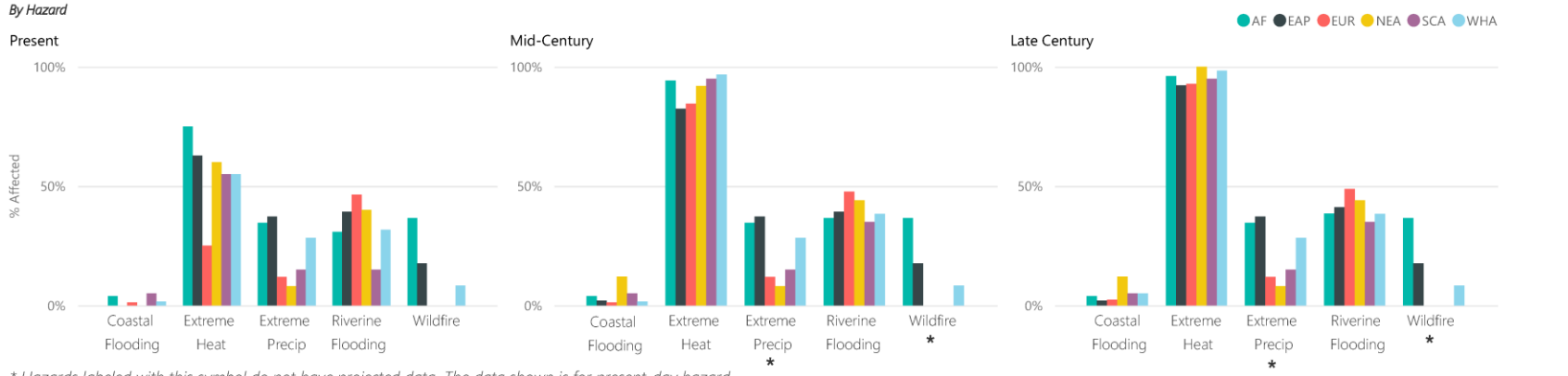
** Hazards labeled with this symbol do not have projected data. The data shown is for present-day hazard.*

Personnel Affected: Present vs. Projected (RCP 8.5)

Department of State (Overseas Facilities) Climate Adaptation Plan

Represents sum of total personnel count (from F-77 Report of Potential Evacuees) at any affected posts. "Affected post" is defined as any post where the hazard threshold was met either at the primary building (e.g., chancery) or by a weighted average of all facilities.





** Hazards labeled with this symbol do not have projected data. The data shown is for present-day hazard.*

Personnel Affected: Present vs. Projected (RCP 4.5)

Department of State (Overseas Facilities) Climate Adaptation Plan

Represents sum of total personnel count (from F-77 Report of Potential Evacuees) at any affected posts. "Affected post" is defined as any post where the hazard threshold was met either at the primary building (e.g., chancery) or by a weighted average of all facilities.

Values	AF	EAP	EUR	NEA	SCA	WHA	Grand Total
Extreme Heat Present (RCP4.5)	75%	63%	19%	48%	55%	50%	48%
Extreme Heat RCP4.5 Mid-Century (2065)	94%	78%	85%	84%	90%	92%	87%
Extreme Heat RCP4.5 Late-Century (2100)	94%	78%	86%	88%	90%	92%	88%
Extreme Precip Present	35%	37%	12%	8%	15%	28%	24%
Coastal Flooding Present	4%	0%	1%	0%	5%	2%	2%
Coastal Flooding RCP4.5 Mid-Century (2065)	4%	2%	1%	12%	5%	2%	3%
Coastal Flooding RCP4.5 Late-Century (2100)	4%	2%	1%	12%	5%	2%	3%
Riverine Flooding Present	31%	39%	46%	40%	15%	32%	37%
Riverine Flooding RCP4.5 Mid-Century (2050)	35%	37%	48%	44%	25%	38%	40%
Riverine Flooding RCP4.5 Late-Century (2080)	35%	41%	50%	44%	30%	37%	41%
Wildfire Present	37%	18%	0%	0%	0%	8%	11%

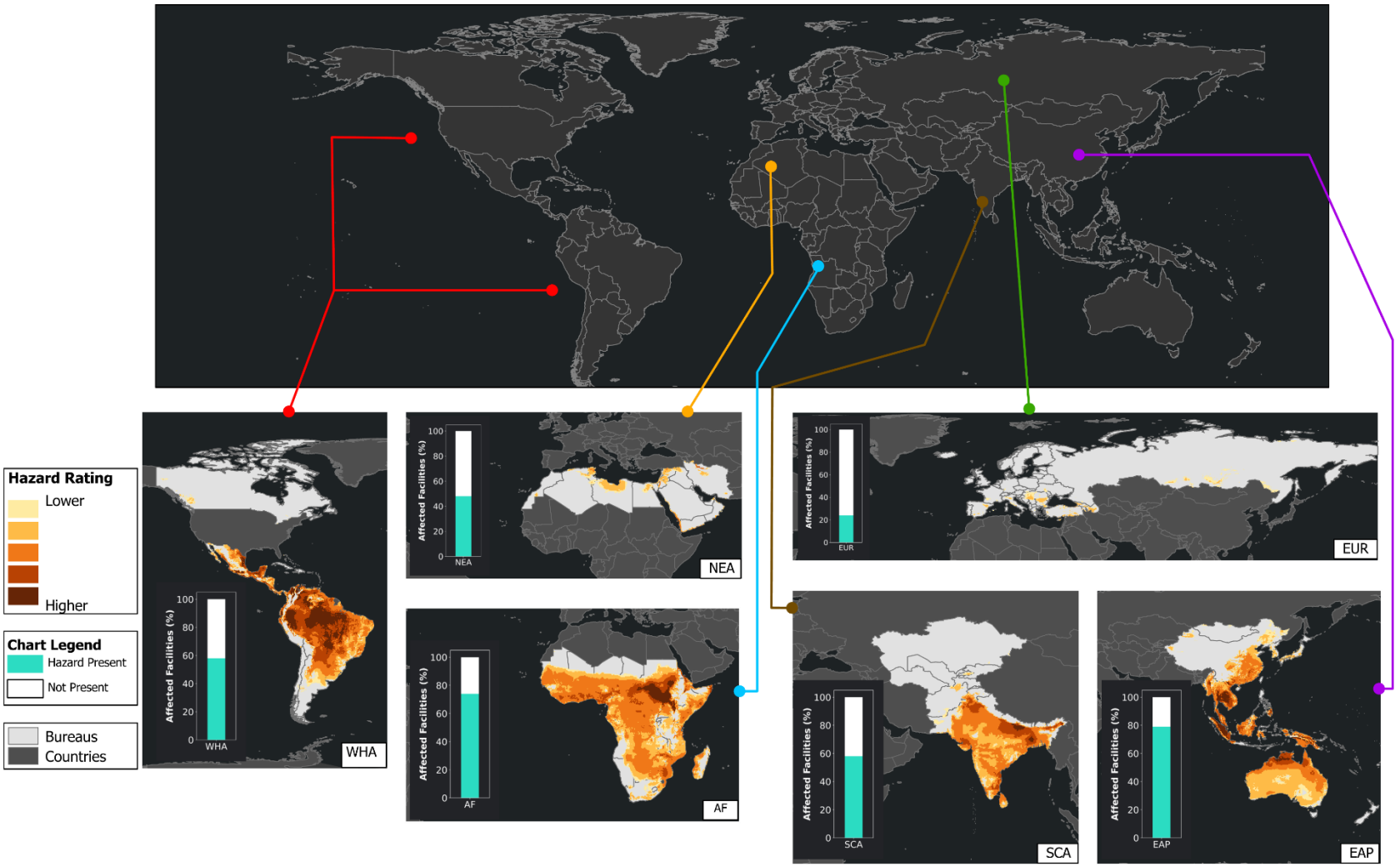
Personnel Affected: Present vs. Projected (RCP 8.5)

Department of State (Overseas Facilities) Climate Adaptation Plan

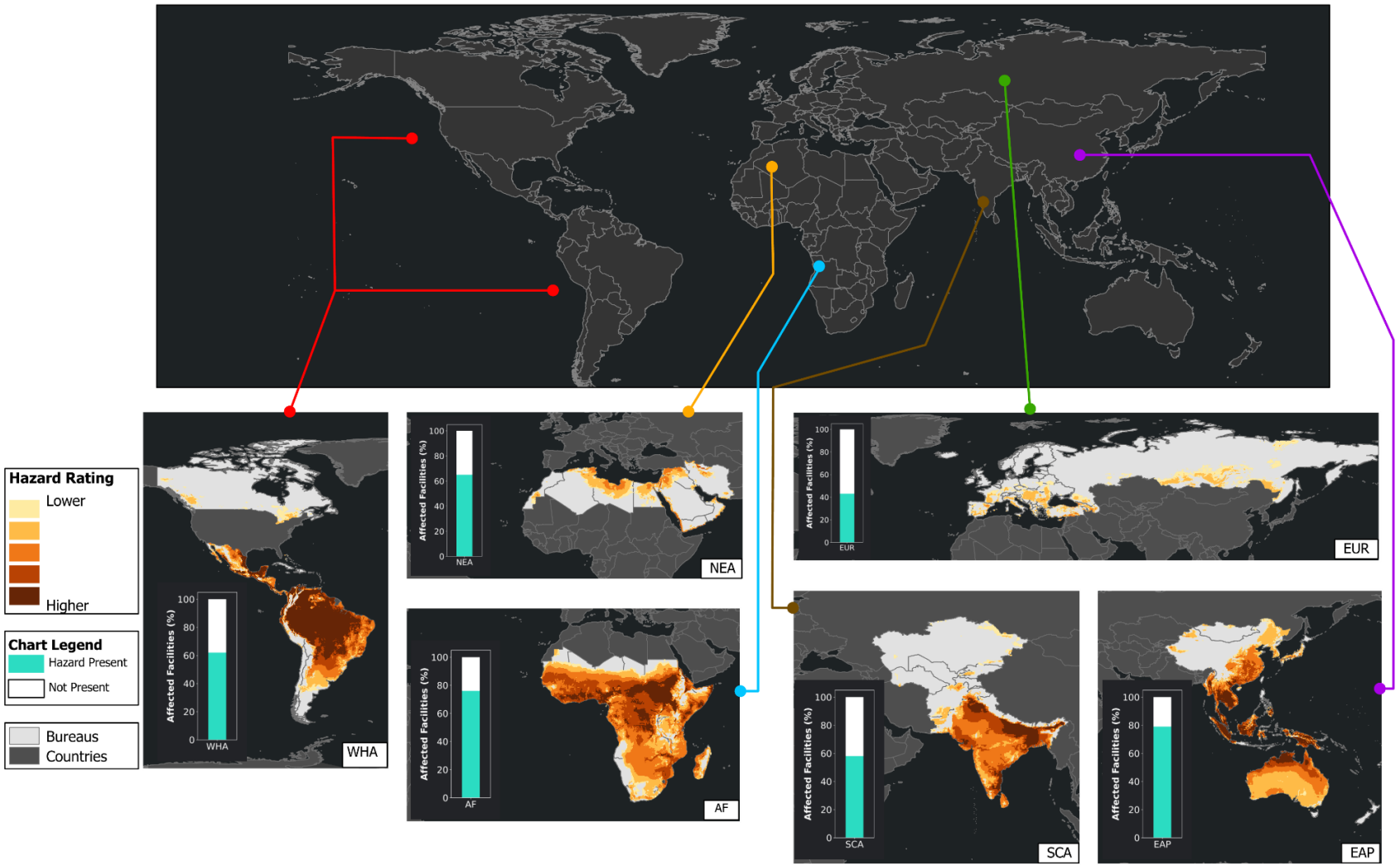
Represents sum of total personnel count (from F-77 Report of Potential Evacuees) at any affected posts. "Affected post" is defined as any post where the hazard threshold was met either at the primary building (e.g., chancery) or by a weighted average of all facilities.

Values	AF	EAP	EUR	NEA	SCA	WHA	Grand Total
Extreme Heat Present (RCP8.5)	75%	63%	25%	60%	55%	55%	52%
Extreme Heat RCP8.5 Mid-Century (2065)	94%	82%	85%	92%	95%	97%	90%
Extreme Heat RCP8.5 Late-Century (2100)	96%	92%	93%	100%	95%	98%	95%
Extreme Precip Present	35%	37%	12%	8%	15%	28%	24%
Coastal Flooding Present	4%	0%	1%	0%	5%	2%	2%
Coastal Flooding RCP8.5 Mid-Century (2065)	4%	2%	1%	12%	5%	2%	3%
Coastal Flooding RCP8.5 Late-Century (2100)	4%	2%	2%	12%	5%	5%	4%
Riverine Flooding Present	31%	39%	46%	40%	15%	32%	37%
Riverine Flooding RCP8.5 Mid-Century (2050)	37%	39%	48%	44%	35%	38%	41%
Riverine Flooding RCP8.5 Late-Century (2080)	38%	41%	49%	44%	35%	38%	42%
Wildfire Present	37%	18%	0%	0%	0%	8%	11%

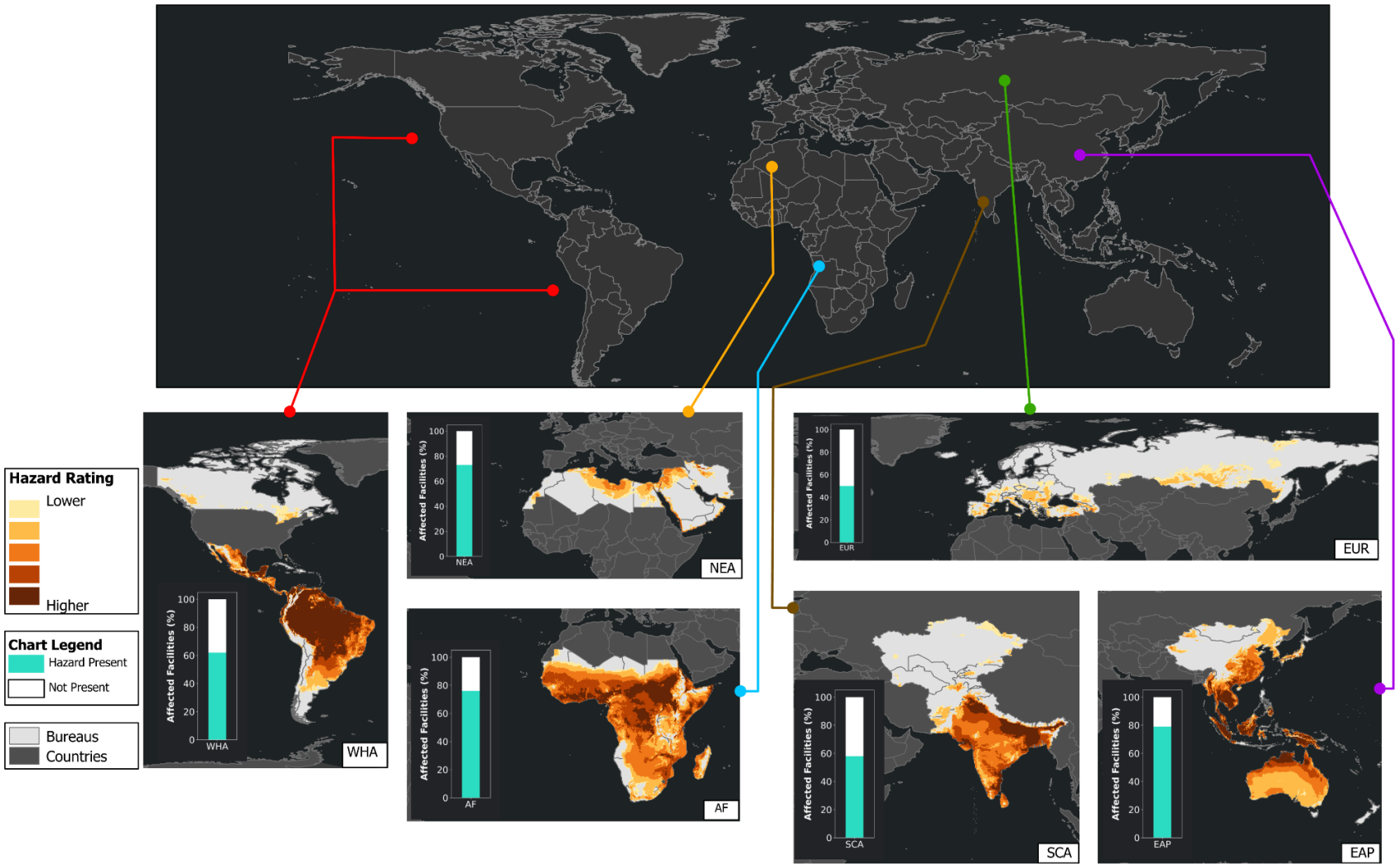
Extreme Heat (Present) Exposure by Bureau



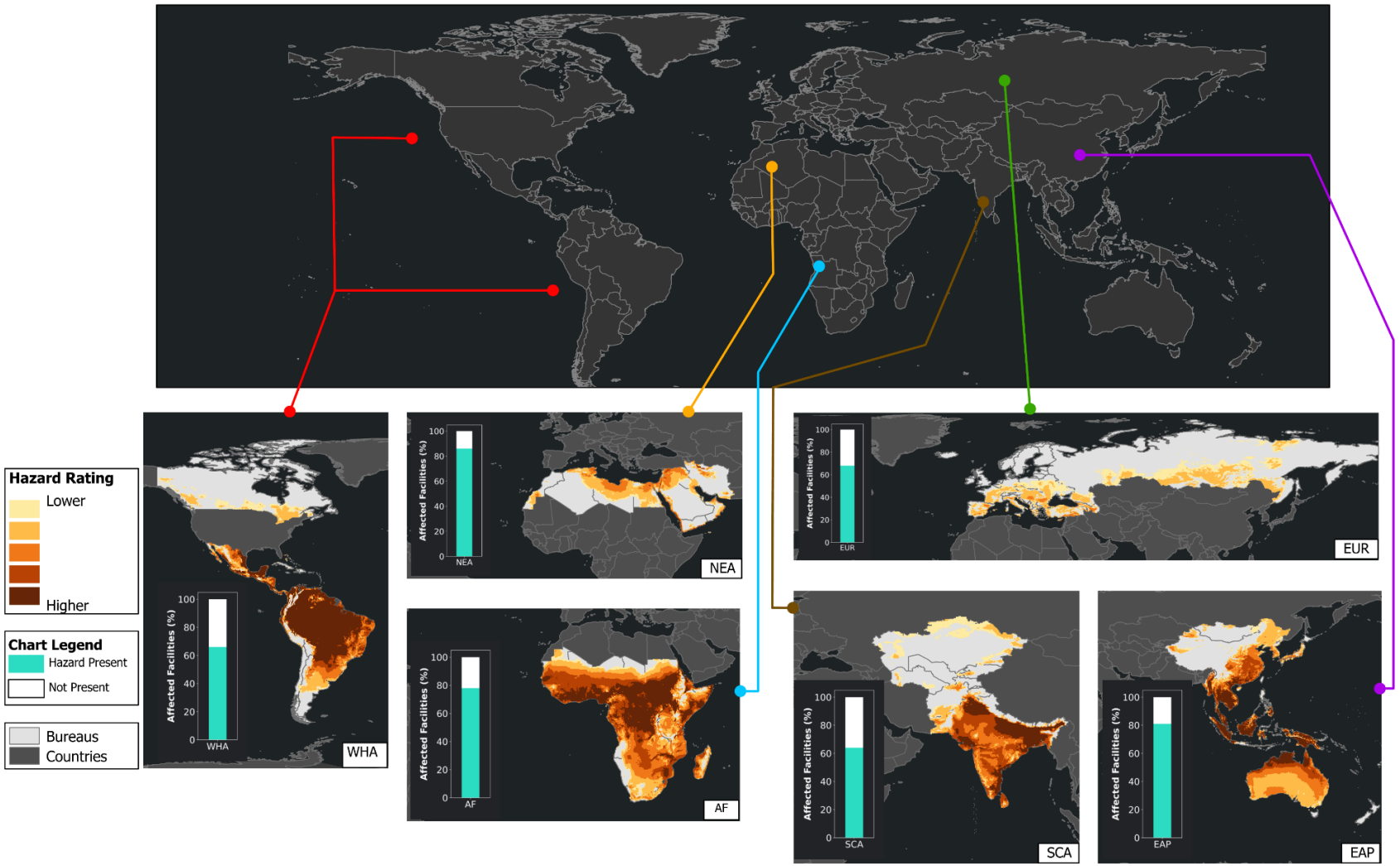
Extreme Heat RCP4.5 Mid-Century (2065) Exposure by Bureau



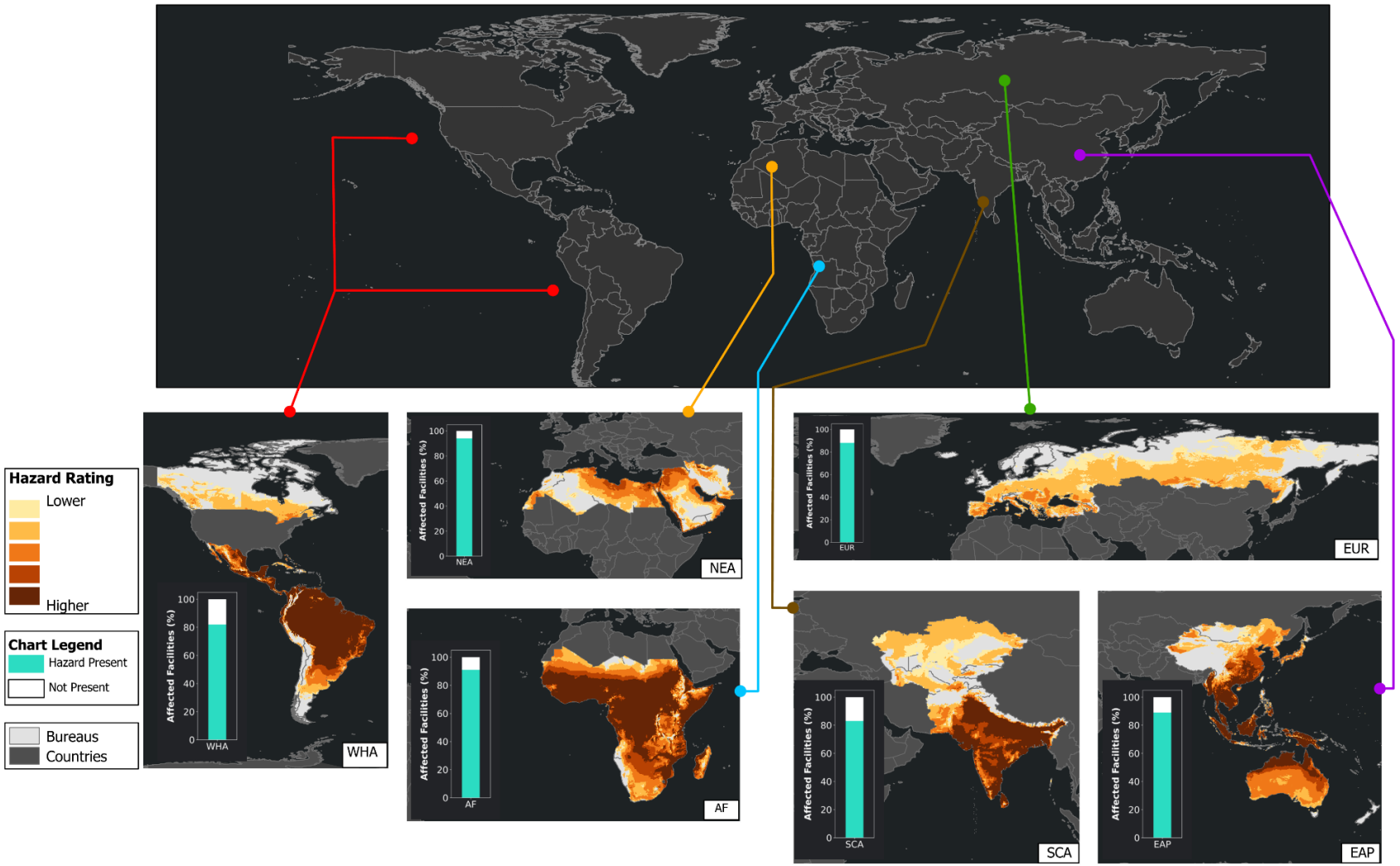
Extreme Heat RCP4.5 Late-Century (2100) Exposure by Bureau



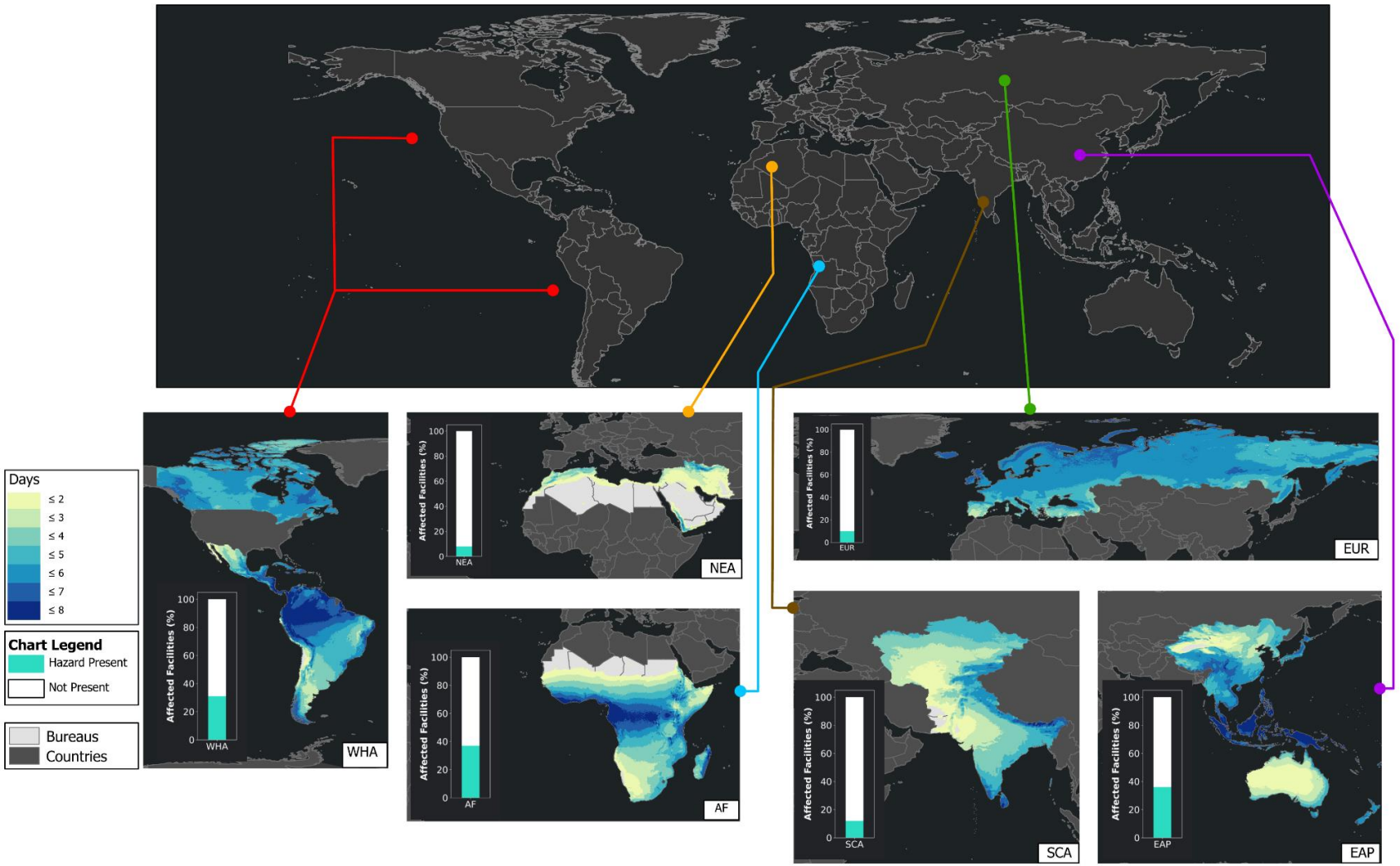
Extreme Heat RCP8.5 Mid-Century (2065) Exposure by Bureau

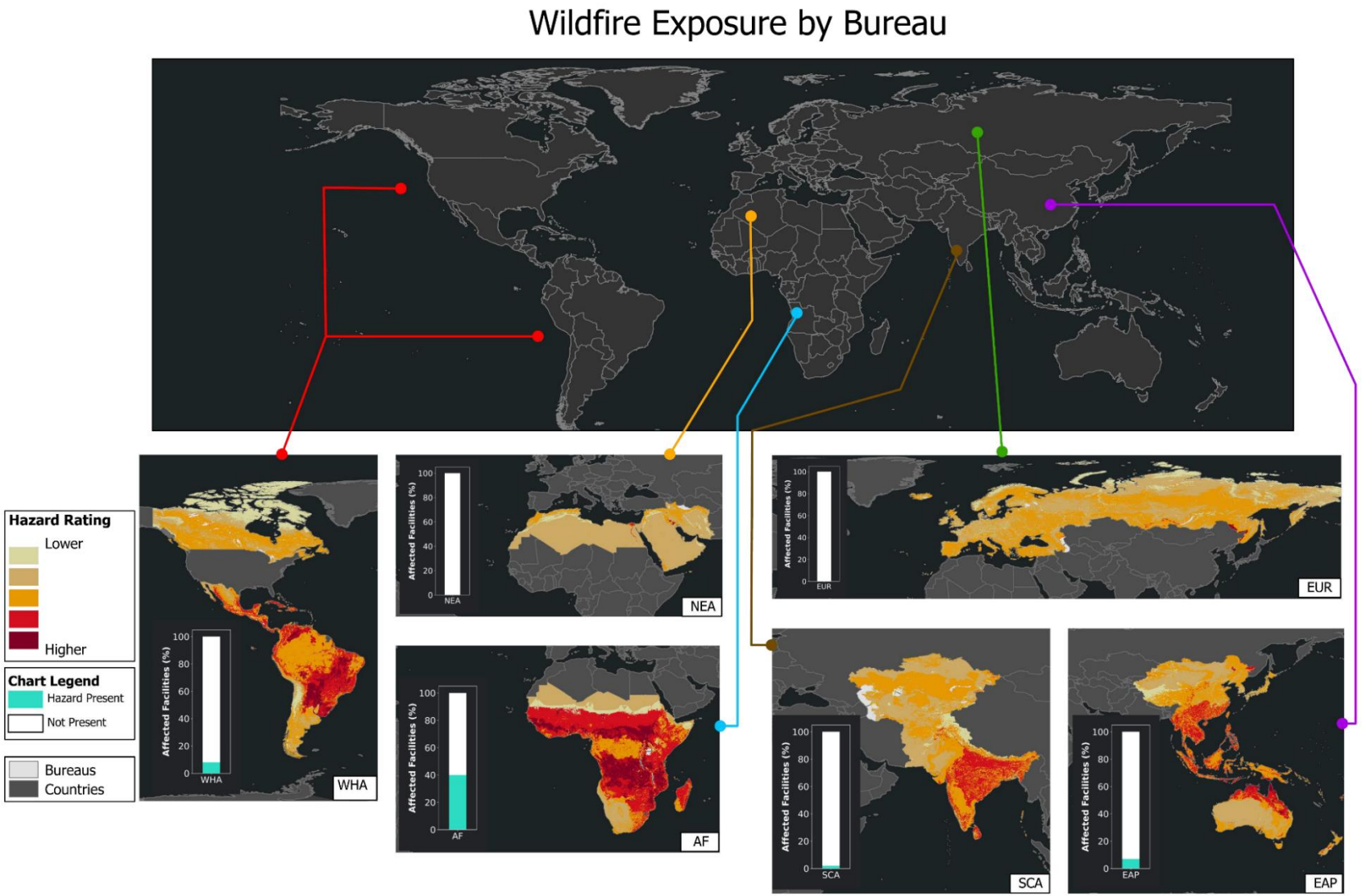


Extreme Heat RCP8.5 Late-Century (2100) Exposure by Bureau



Extreme Precipitation Exposure by Bureau




Wildfire Exposure by Bureau
Hazard Rating
Lower
Higher
Chart Legend
Hazard Present
Not Present
Bureaus
Countries
Affected Facilities (%)
WHA
NEA
AF
EUR
SCA
EAP

Appendix: Descriptions of Additional Hazard Metrics

Department of State (Overseas Facilities) Climate Adaptation Plan

Earthquake

Moderate High, High, or Very High seismicity zonation based on FEMA P-154 methodology.

Extreme Wind

1000-year wind speed ≥ 154 km/hr based on both hourly wind speed and cyclonic wind speed sources from NASA MERRA2 data. Mid-Century and Late-Century projections represent the 2065 and 2100 time horizons, respectively (differing from the FCAP tool's 2050 and 2080).

Landslide

Average annual frequency of occurrence per km2 ≥ 0.001 for a significant landslide occurring due to rainfall or earthquake triggers based on World Bank's packaging of NASA landslide data and NOAA rainfall data.

Tsunami

500-yr tsunami inundation depth ≥ 1 m based on Global Tsunami Model tsunami wave heights and NASADEM/GMTED2010 ground elevation within 10 km of coastline. Mid-Century and Late-Century projections represent the 2065 and 2100 time horizons, respectively (differing from the FCAP tool's 2050 and 2080).

Volcano

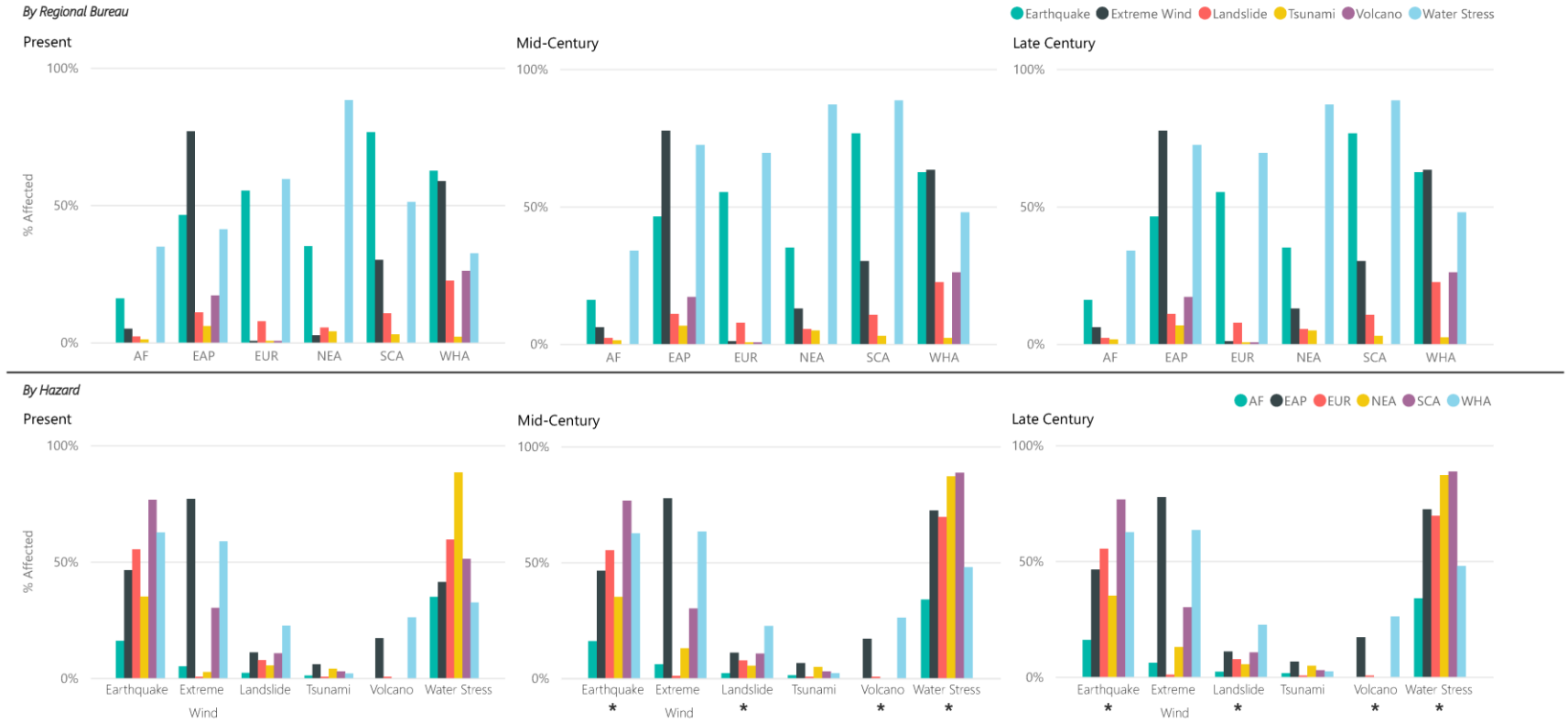
Moderate, High, or Very High threat of volcano based on modified 12-parameter USGS NVEWS methodology, proximal distance, and probabilistic ashfall exposure.

Water Stress

Medium High, High, or Very High ratio of water demand to water supply for a hydrological subbasin based on World Resources Institute's 2019 update of the Aqueduct water risk framework.

Appendix: Facilities Affected by Additional Hazards (RCP 4.5)

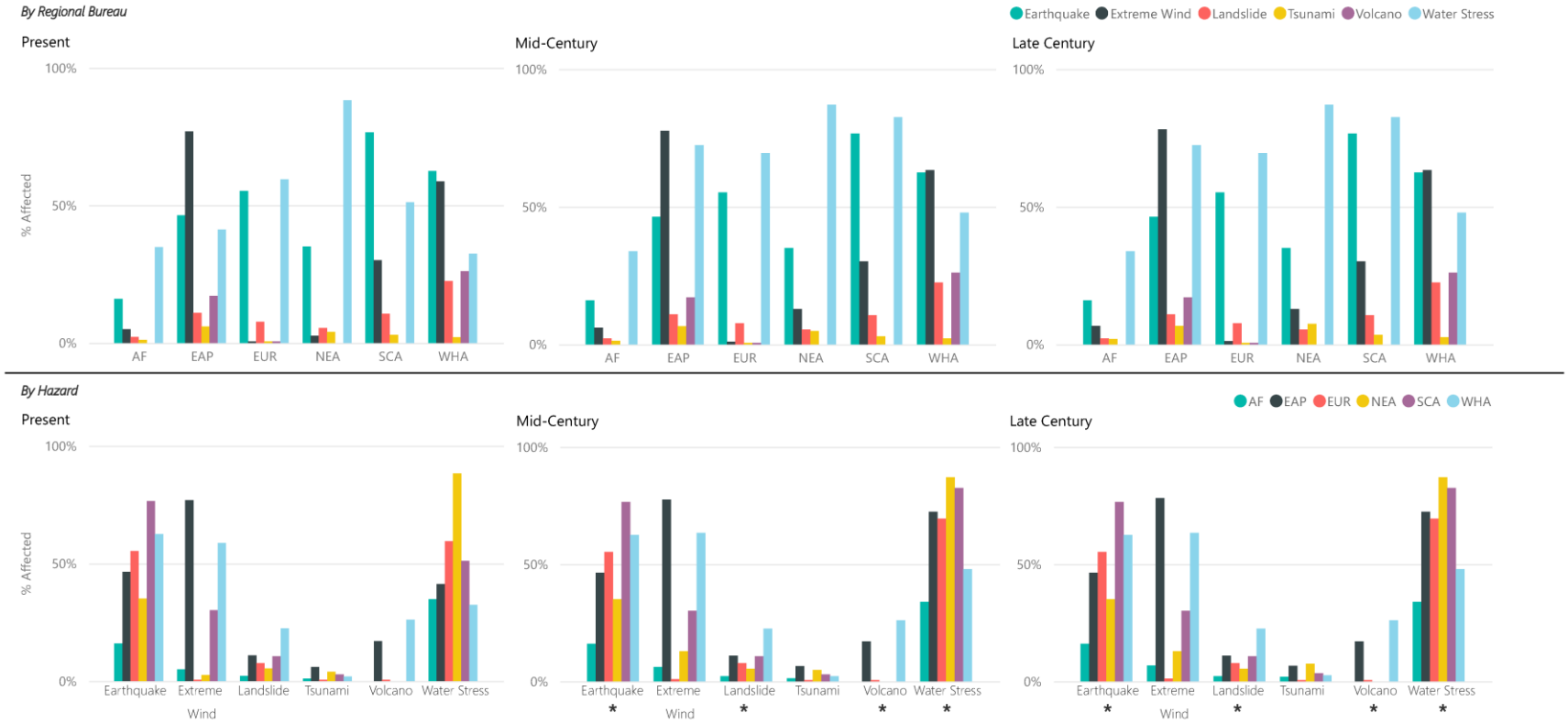
Department of State (Overseas Facilities) Climate Adaptation Plan



** Hazards labeled with this symbol do not have projected data. The data shown is for present-day hazard (except for Water Stress Mid-Century and Water Stress Late Century, which both use time horizon 2035).*

Appendix: Facilities Affected by Additional Hazards (RCP 8.5)

Department of State (Overseas Facilities) Climate Adaptation Plan



** Hazards labeled with this symbol do not have projected data. The data shown is for present-day hazard (except for Water Stress Mid-Century and Water Stress Late Century, which both use time horizon 2035).*

Appendix: Facilities Affected by Additional Hazards (RCP 4.5)

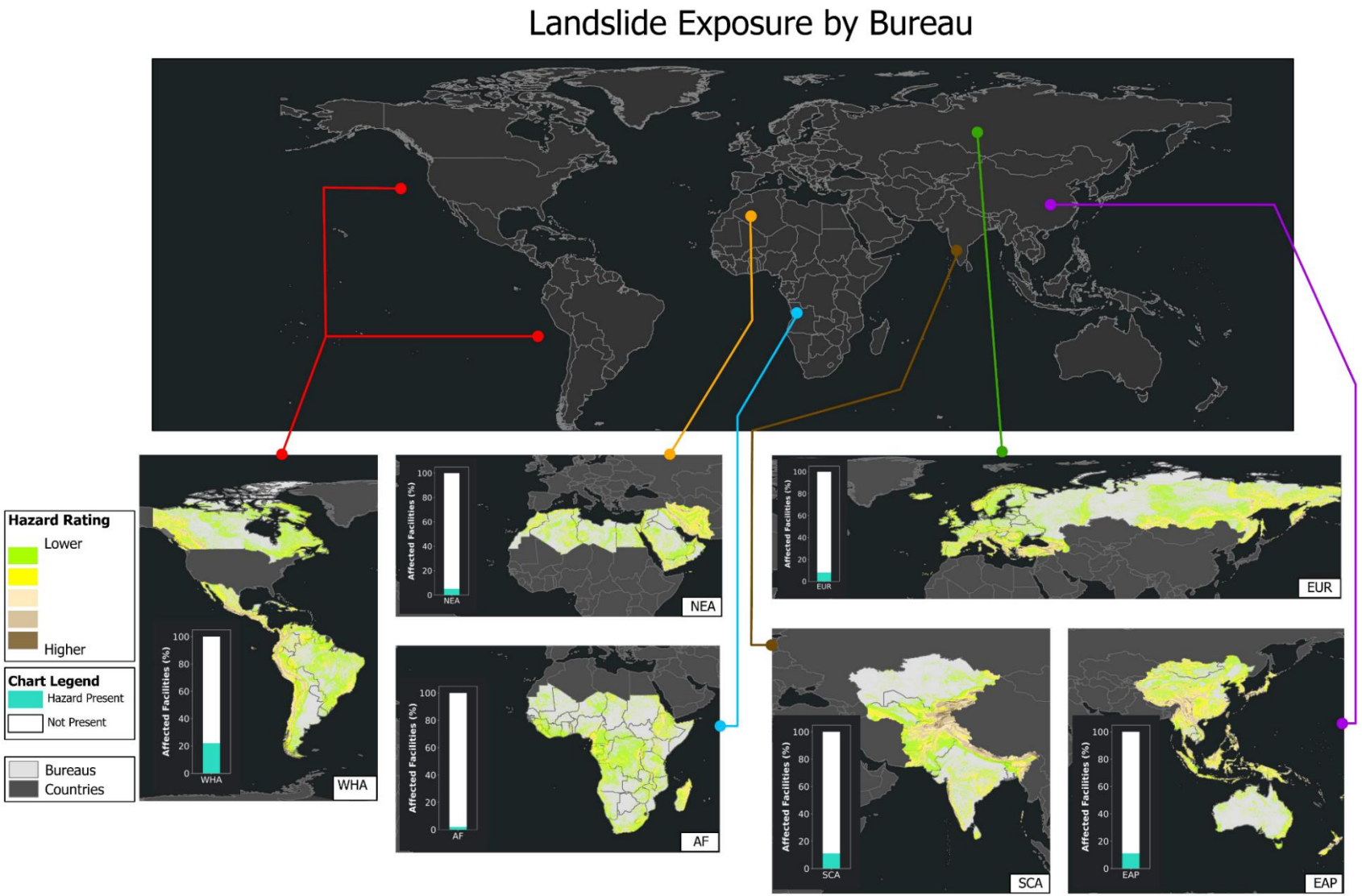
Department of State (Overseas Facilities) Climate Adaptation Plan

Values	AF	EAP	EUR	NEA	SCA	WHA	Grand Total
Earthquake	16%	46%	55%	35%	77%	62%	47%
Tsunami Present	1%	6%	0%	4%	3%	2%	2%
Tsunami RCP4.5 Mid-Century (2065)	1%	7%	0%	5%	3%	2%	3%
Tsunami RCP4.5 Late-Century (2100)	2%	7%	0%	5%	3%	2%	3%
Landslide	2%	11%	8%	5%	11%	22%	11%
Volcano	0%	17%	0%	0%	0%	26%	9%
Extreme Wind Present	5%	77%	0%	3%	30%	59%	30%
Extreme Wind RCP4.5 Mid-Century (2065)	6%	78%	1%	13%	30%	63%	33%
Extreme Wind RCP4.5 Late-Century (2100)	6%	78%	1%	13%	30%	63%	33%
Water Stress Present	35%	41%	59%	88%	51%	32%	50%
Water Stress RCP4.5 Mid-Century (2035)	34%	72%	69%	87%	89%	48%	63%

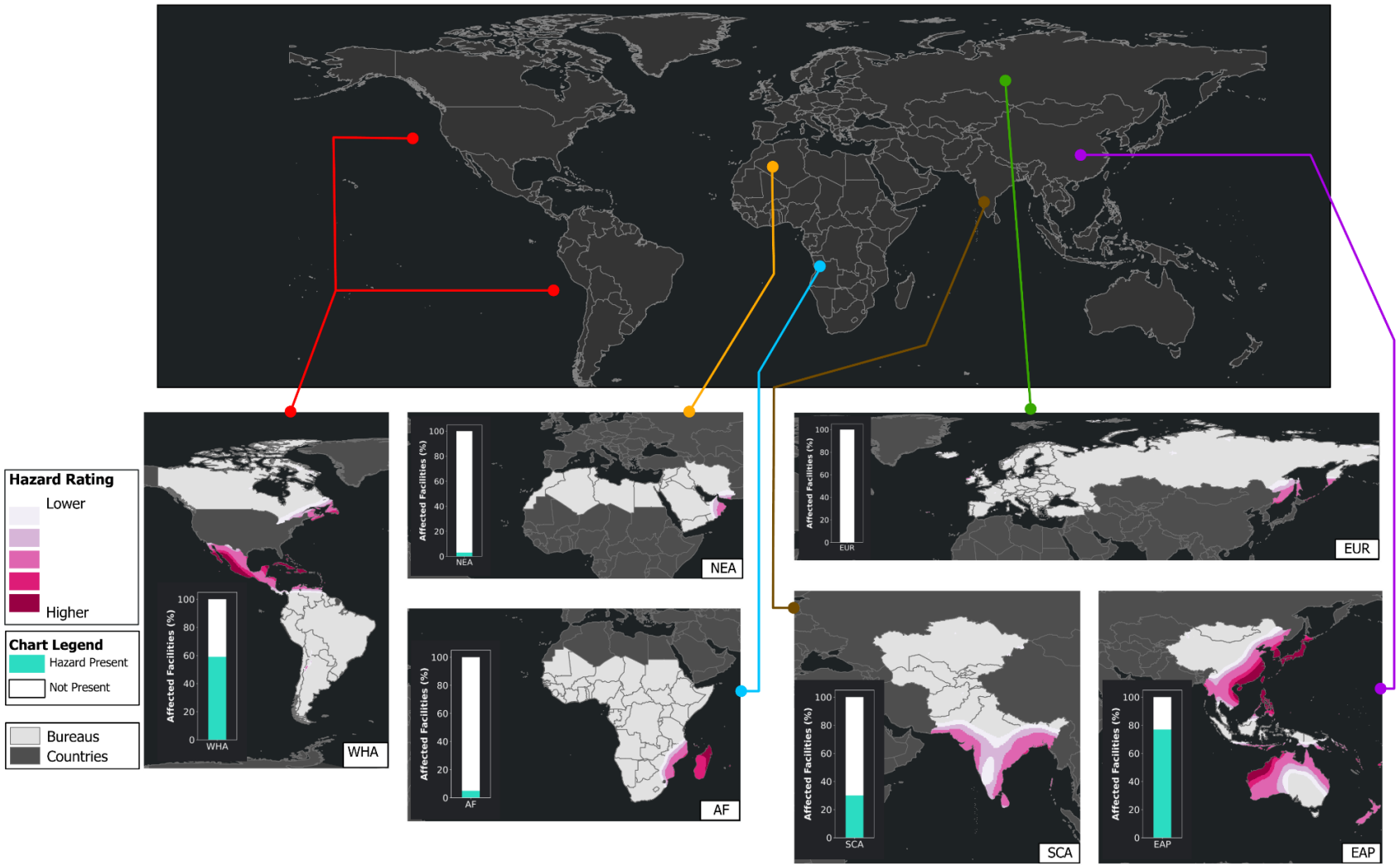
Appendix: Facilities Affected by Additional Hazards (RCP 8.5)

Department of State (Overseas Facilities) Climate Adaptation Plan

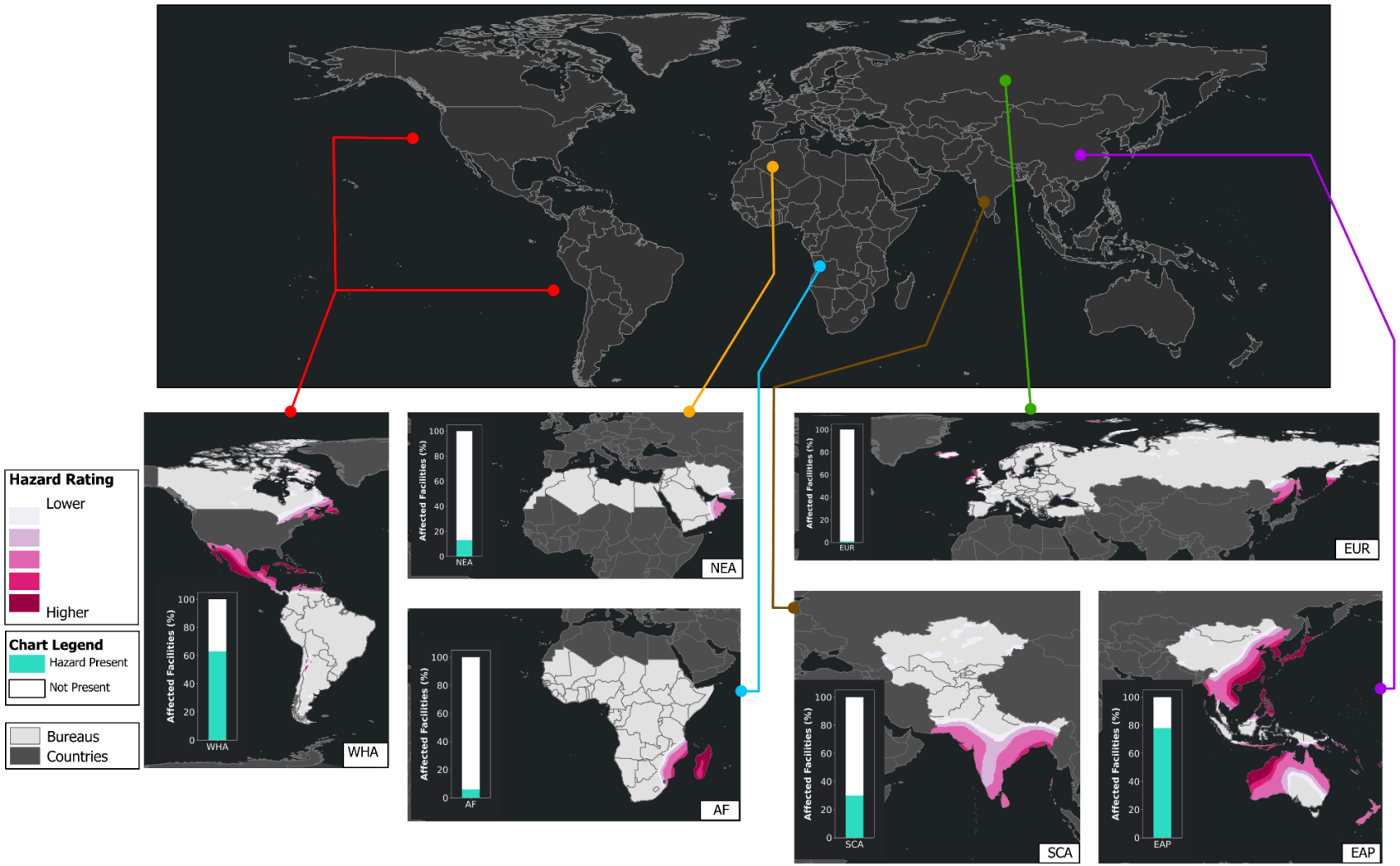
Values	AF	EAP	EUR	NEA	SCA	WHA	Grand Total
Earthquake	16%	46%	55%	35%	77%	62%	47%
Tsunami Present	1%	6%	0%	4%	3%	2%	2%
Tsunami RCP8.5 Mid-Century (2065)	1%	7%	0%	5%	3%	2%	3%
Tsunami RCP8.5 Late-Century (2100)	2%	7%	0%	7%	3%	3%	3%
Landslide	2%	11%	8%	5%	11%	22%	11%
Volcano	0%	17%	0%	0%	0%	26%	9%
Extreme Wind Present	5%	77%	0%	3%	30%	59%	30%
Extreme Wind RCP8.5 Mid-Century (2065)	6%	78%	1%	13%	30%	63%	33%
Extreme Wind RCP8.5 Late-Century (2100)	7%	78%	1%	13%	30%	63%	33%
Water Stress Present	35%	41%	59%	88%	51%	32%	50%
Water Stress RCP8.5 Mid-Century (2035)	34%	72%	69%	87%	82%	48%	63%


Landslide Exposure by Bureau
Hazard Rating
Lower
Higher
Chart Legend
Hazard Present
Not Present
Bureaus
Countries
Affected Facilities (%)
WHA
NEA
EUR
AF
SCA
EAP

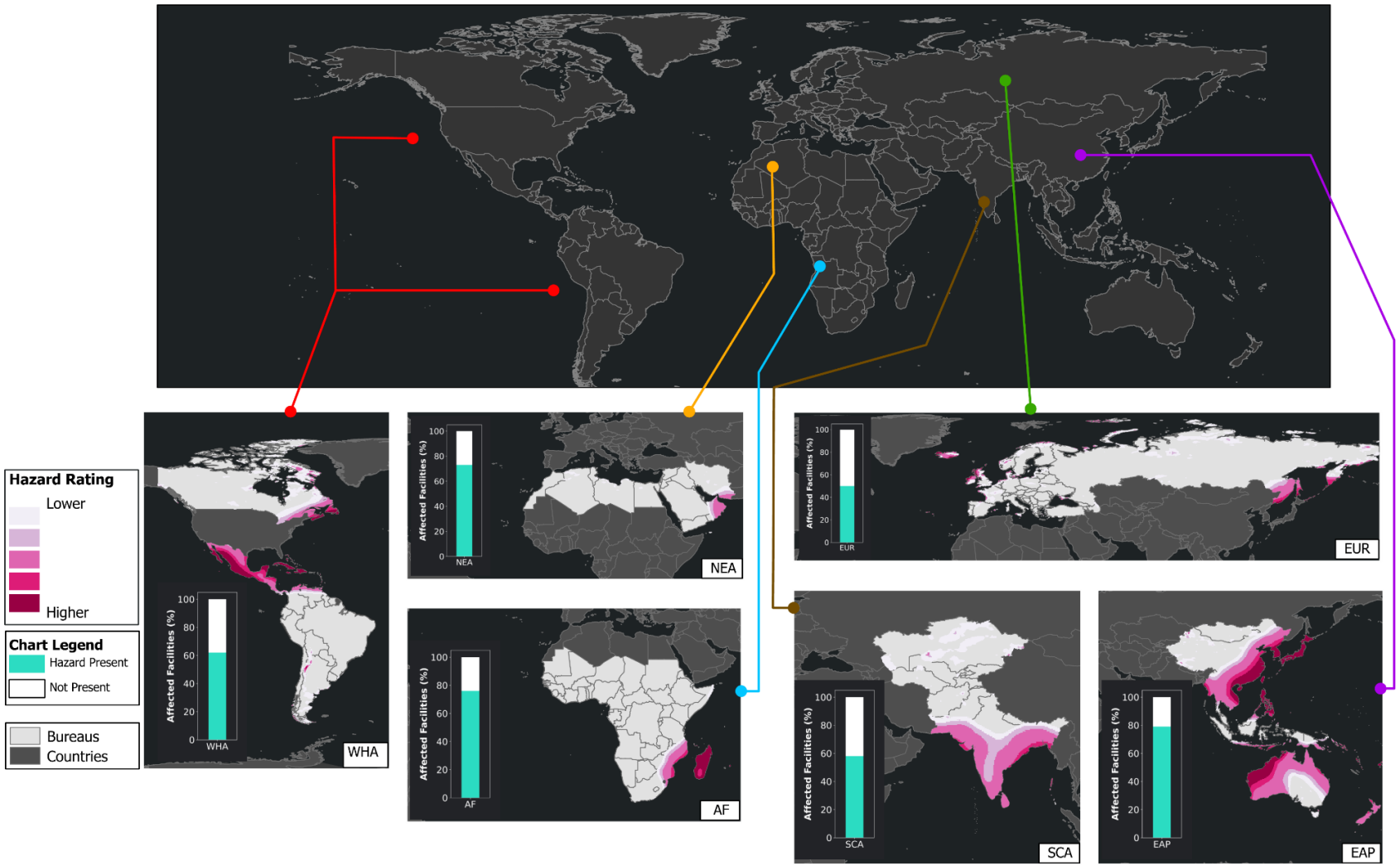
Extreme Wind (Present) Exposure by Bureau



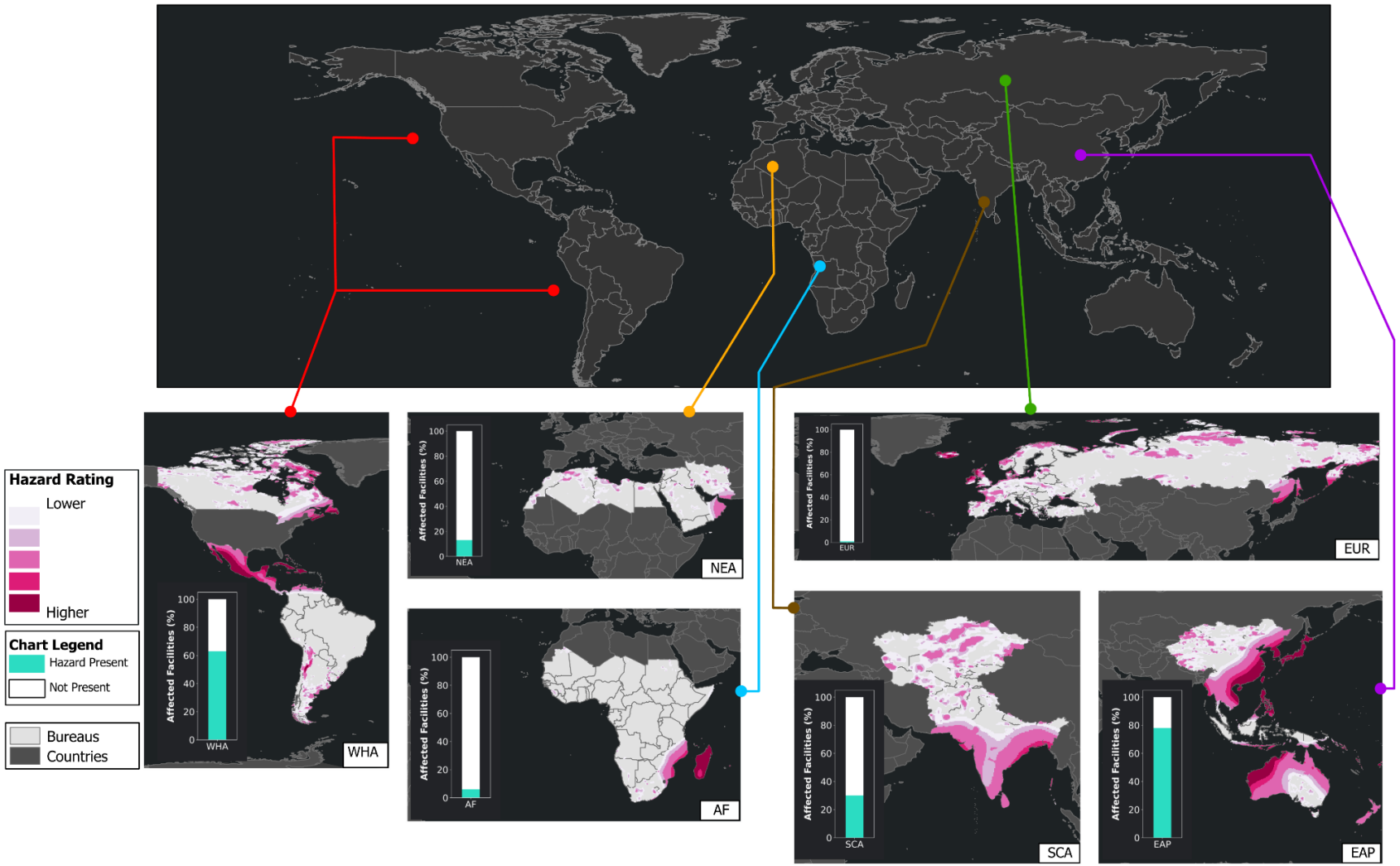
Extreme Wind RCP4.5 Mid-Century (2065) Exposure by Bureau



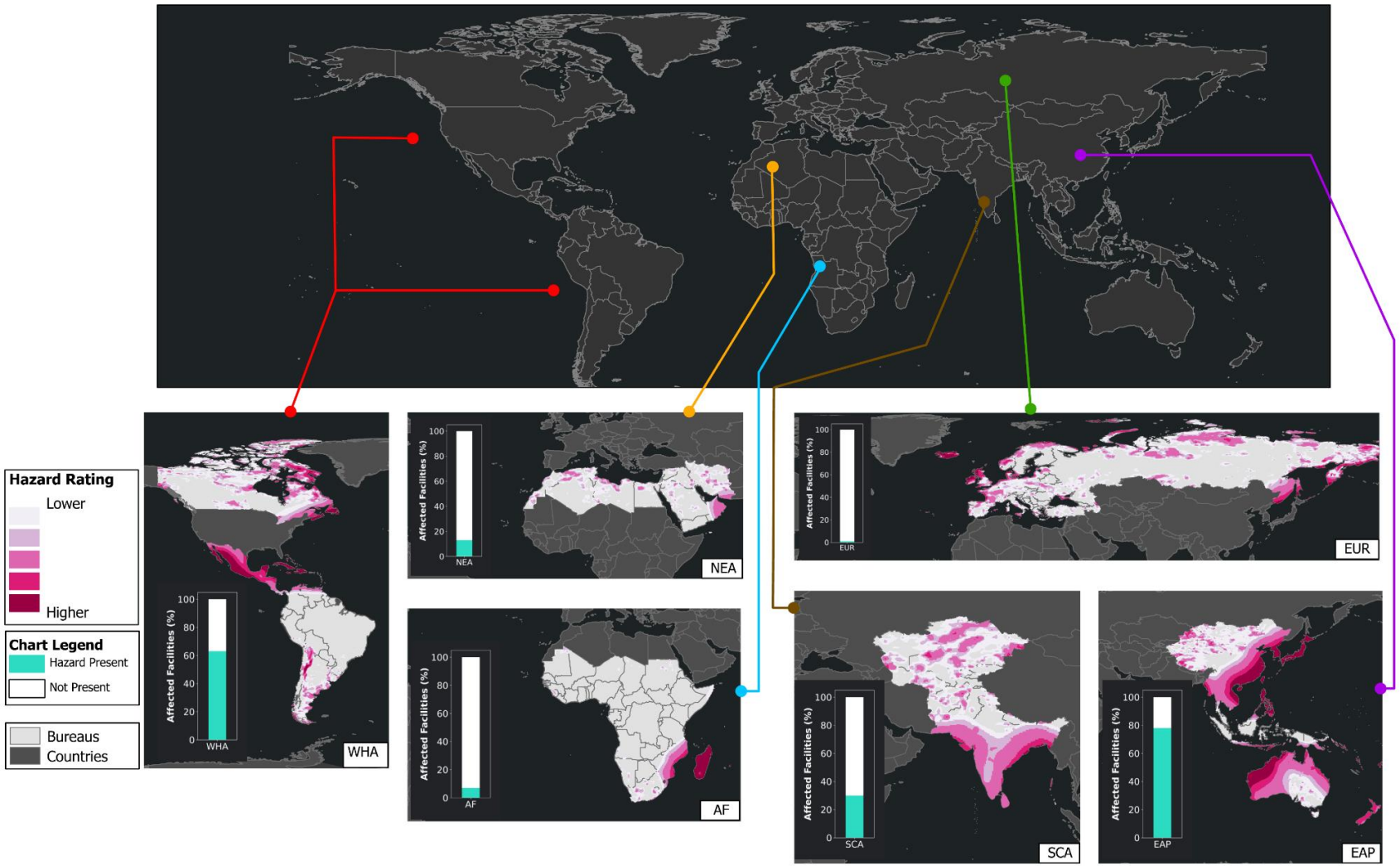
Extreme Wind RCP4.5 Late-Century (2100) Exposure by Bureau



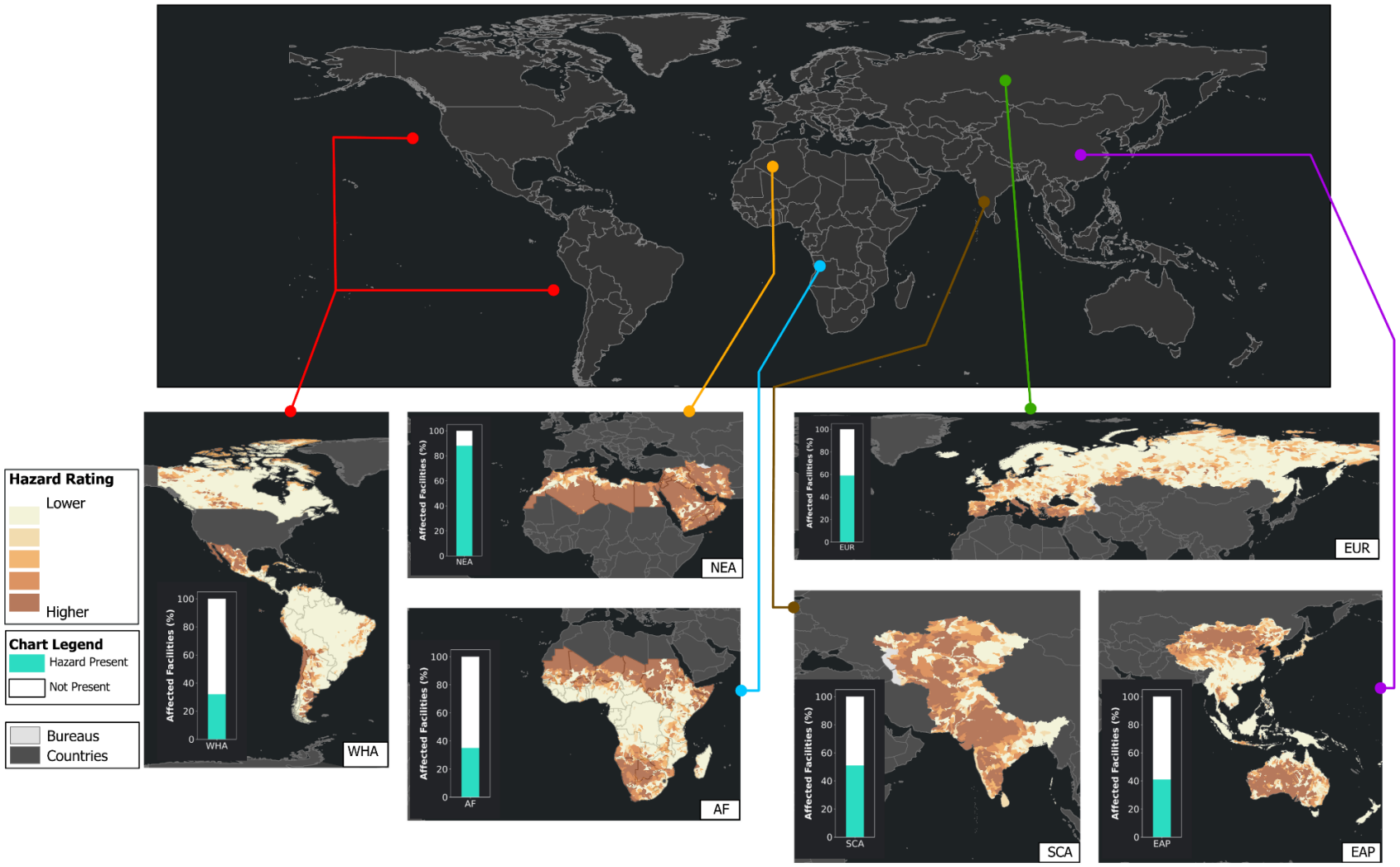
Extreme Wind RCP8.5 Mid-Century (2065) Exposure by Bureau



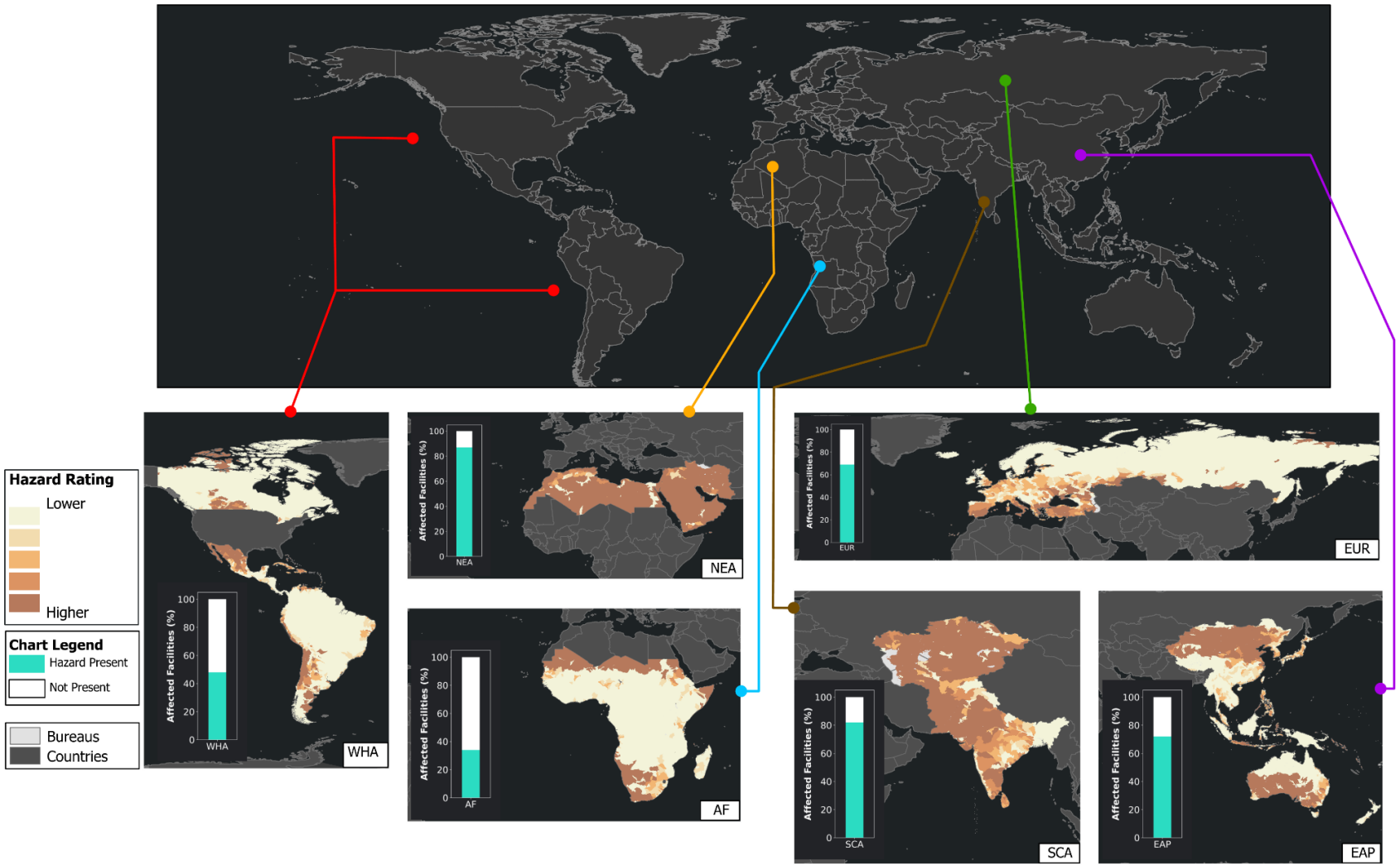
Extreme Wind RCP8.5 Late-Century (2100) Exposure by Bureau



Water Stress (Present) Exposure by Bureau



Water Stress RCP8.5 Mid-Century (2035) Exposure by Bureau



Water Stress RCP4.5 Mid-Century (2035) Exposure by Bureau