

USAID
**CLIMATE CHANGE
ADAPTATION PLAN**
FOR 2014

JUNE 2013

TABLE OF CONTENTS

Table of Contents	1
Acronyms	2
Executive Summary	3
A. Agency Vulnerability Assessment.....	3
B. Current and Past Agency Adaptation-Related Actions.....	3
C. Planned Agency Adaptation-Related Actions.....	4
USAID Climate Change Adaptation Plan for 2014	5
I. USAID Policy Framework for Climate Change Adaptation	6
II. Agency Vulnerability Assessment: Analysis of Climate Change Risk and Opportunities .	6
A. USAID Mission Vulnerability Assessment.....	7
B. USAID Program Vulnerability Assessment.....	7
Projected Weather and Climate Conditions.....	8
Key Climate Impacts and Vulnerabilities.....	8
Key USAID Program Vulnerabilities.....	8
Challenges to Adaptation.....	14
C. USAID Operations Vulnerability Assessment.....	15
Assets.....	15
Infrastructure and Support Systems.....	16
Health and Safety.....	19
Security.....	20
III. Agency Adaptation-Related Actions	20
A. Overarching Adaptation-Related Actions Supporting USAID’s Mission.....	21
B. USAID Headquarters’ Past, Current and Planned Adaptation-Related Actions Supporting USAID Programming.....	23
Guidance and Training.....	23
Pilot Activities.....	25
Research And Information.....	26
Evaluation and Learning.....	27
Partnerships.....	29
Inreach and Outreach.....	31
C. USAID Mission-Level Past, Current and Planned Adaptation-Related Activities Supporting USAID Programming.....	32
D. Adaptation-Related Actions Supporting USAID’s Operations.....	34
Sources Referenced	36
Appendix I. USAID Climate Change Adaptation Policy Statement	38
Appendix II. USAID Planned Adaptation Actions Summary Tables	39
Appendix III. Country and Regional Vulnerability Profiles	43

ACRONYMS

ARCC	African and Latin American Resilience to Climate Change Program
AREFS	Asia Region Environmental Field Support Program
APS	Annual Program Statement
C-CAP	Coastal Community Adaptation Project
CCRD	Climate Change Resilient Development Program
CDCS	Country Development Cooperation Strategies
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
COMFISH	Collaborative Management for a Sustainable Fisheries Future
CREL	Climate-Resilient Ecosystems and Livelihoods
DoE	Department of Energy
DoS	Department of State
E.O.	Executive Order
EPA	Environmental Protection Agency
FEWS NET	Famine Early Warning Systems Network
FY	Fiscal Year
GCC	Global Climate Change
ICIMOD	International Center for Integrated Mountain Development
ICT	Information and Communications Technology
IMACS	Indonesia Marine and Climate Support
IPCC	Intergovernmental Panel on Climate Change
NASA	National Aeronautics and Space Administration
NEPA	National Environmental Policy Act
NGO	Non-Governmental Organization
NOAA	National Oceanic and Atmospheric Administration
PMI	President's Malaria Initiative
RCMRD	Center for Mapping Resources for Development
REDD+	Reducing Emissions from Deforestation and Forest Degradation
RESILIM	Resilience in the Limpopo River Basin
STEWARD	Sustainable and Thriving Environments for West African Regional Development
STTA	Short term technical assistance
UNFCCC	United Nations Framework Convention on Climate Change
USACE	United States Army Corps of Engineers
USAID	United States Agency for International Development
USAID/M/CFO/FS	USAID, Bureau for Management, Office of the Chief Financial Officer, Financial Systems Division
USAID/RDMA	USAID's Regional Development Mission for Asia
USDA	United States Department of Agriculture
USG	United States Government
USGS	United States Geological Survey
V&A	Vulnerability and Adaptation
WASH	Water, Sanitation, and Hygiene

EXECUTIVE SUMMARY

The United States Agency for International Development (USAID) prepared this Climate Change Adaptation Plan for 2014 in accordance with Executive Order (E.O.) 13514 “Federal Leadership in Environmental, Energy, and Economic Performance.” The Plan assesses climate change risks, vulnerabilities, and opportunities for USAID’s mission, programs, and operations; discusses USAID’s current and past activities to address those issues; and identifies agency-level actions to understand and address internal climate change vulnerability. This Plan is not meant to inform adaptation programming in USAID’s partner countries; that is instead guided by the *USAID Climate Change and Development Strategy*, which sets out principles, objectives and priorities for USAID climate change assistance with the aim of helping countries and communities prepare for and adapt to changes in climate. Similarly, while climate change mitigation is a vital part of any strategy to deal with climate change, it is not considered in this document, since it is comprehensively addressed in both the *USAID Climate Change and Development Strategy* and the *Agency Sustainability Plan*.

A. AGENCY VULNERABILITY ASSESSMENT

In many ways, including with direct Global Climate Change Adaptation funding, USAID investments and activities promote the resilience of vulnerable populations to climate vulnerability and change. However, climate change could have a substantial negative impact on USAID’s other development efforts, given the Agency’s extensive investments in climate-sensitive sectors located in climate-vulnerable regions. Ultimately, the impact of climate change on USAID programs and operations, if left unaddressed, could compromise the Agency’s ability to achieve its mission.

The type and degree of climate-related impacts and vulnerabilities across USAID’s partner countries will be diverse, with consequences for human health, economic growth, livelihoods, and biodiversity, among others. Climate change could significantly affect key program areas, including agriculture and food security; global health; water, sanitation, and hygiene; malaria; infrastructure; and disaster readiness and humanitarian response. A lack of data and capacity in partner countries and regions hinders efforts to reduce vulnerability.

Climate change may also jeopardize the continuity and effectiveness of USAID operations. In particular, it poses risks for USAID assets; infrastructure and support systems; workforce health, safety, and well-being; and security. These impacts could have serious implications, including: loss of asset value; higher maintenance and operating costs; increased safety concerns; disruption, deterioration, or elimination of services; implications for external coordination and program implementation; or compromised welfare of personnel.

B. CURRENT AND PAST AGENCY ADAPTATION-RELATED ACTIONS

USAID has been investing in actions that help the Agency better understand climate change risks and opportunities and reduce vulnerabilities since 1991. In 2011, USAID created a position of Climate Change Coordinator. In January 2012, the Agency released the *USAID Climate Change and Development Strategy*. 2012-2016, which includes a number of actions to integrate climate change adaptation into the Agency’s mission, programs, and operations. In December 2012, USAID released new Policy and Program Guidance titled *Building Resilience to Recurring Crisis*, which aims to reduce chronic vulnerability and promote more inclusive growth in areas of recurrent crisis; the policy recommends considering the current and future effects of climate change to facilitate better prediction of, preparation for, and response to, recurrent shocks. USAID is

also providing direct adaptation funding through its missions to a number of particularly vulnerable countries, especially small island developing states, glacier-dependent countries, least developed countries and countries in Africa, to help address climate change vulnerabilities. In addition to these overarching efforts, USAID has undertaken a number of activities related to *Guidance and Training, Pilot Activities, Research and Information, Evaluation and Learning, Partnerships, and Inreach and Outreach*, which are detailed below.

C. PLANNED AGENCY ADAPTATION-RELATED ACTIONS

USAID adaptation planning, implementation, and evaluation will continue to be led by the Agency Climate Change Coordinator. To ensure the ongoing achievement of USAID’s mission, the Agency will annually review and update the Agency Adaptation Plan, and make it available to USAID staff and the general public.

In addition, USAID has developed a list of actions to better understand and address climate change vulnerabilities of programs and projects. These programmatic actions are listed in the table below:

Category	Complete or underway	Planned Activities for FY2014-2016
<i>Guidance and Training</i>	<ul style="list-style-type: none"> • Publish Updated Adaptation Guidance Manual and Sectoral Briefs • Develop Country Development Cooperation Strategy (CDCS) Supplemental Guidance • Conduct Climate Change Adaptation Training • Create Sectoral Project Design Guidance and Training 	<ul style="list-style-type: none"> • Review Environmental Impact Assessment • Ensure Reporting Requirement Performance • Conduct Targeted and Skills-Based Climate Change Adaptation Training
<i>Pilot Activities</i>	<ul style="list-style-type: none"> • Commence Integration Pilots 	<ul style="list-style-type: none"> • Compile Lessons Learned & Best Practices from Pilots • Implement and Evaluate Integration Pilots
<i>Research and Information</i>		<ul style="list-style-type: none"> • Conduct Climate Change and Development Research • Conduct Survey of Applied Climate Change and Development Research Needs • Develop Climate Change and Development Research Strategy
<i>Evaluation and Learning</i>	<ul style="list-style-type: none"> • Design Agency Monitoring and Evaluation Plan for Climate Change Programs • Host Climate Change Adaptation Learning Workshops 	<ul style="list-style-type: none"> • Compile and Exchange Climate Change Adaptation Lessons Learned • Develop Climate Change Adaptation Help Desk
<i>Partnerships</i>	<ul style="list-style-type: none"> • Convene Adaptation Partnership workshops • Release APS to facilitate development of Global Development Alliances (GDAs) to address climate change, including through adaptation. 	<ul style="list-style-type: none"> • Engage Youth Partnership • Develop Climate Change Adaptation Coordination Plan • Form Private Sector Alliance
<i>Inreach and Outreach</i>	<i>See related activities above.</i>	

Finally, USAID has identified a number of actions to better understand and address operational vulnerability. Collaboration with the Department of State (DoS) will be critical for addressing operational vulnerability, as a significant portion of USAID operations are co-located or co-implemented with DoS. Operational adaptation actions in FY2014 include exploring an operational Climate Change Adaptation Partnership with DoS and supporting Climate Smart Missions. Actions in FY2015-2016 include seeking opportunities for operational climate change adaptation training and resources.

USAID CLIMATE CHANGE ADAPTATION PLAN FOR 2014

The United States Agency for International Development (USAID) first prepared an Adaptation Plan in 2012 in accordance with Executive Order (E.O.) 13514 “Federal Leadership in Environmental, Energy, and Economic Performance.” The E.O. seeks to establish an integrated strategy toward sustainability in the Federal government. The purpose of the USAID Climate Change Adaptation Plan (“USAID’s Adaptation Plan”), completed in 2012 and covering FY2013, is to address section 8(i) of the E.O., which requires that as part of the formal Strategic Sustainability Performance Planning process, each Federal agency evaluate climate change risks and vulnerabilities and ways to manage both the short-and long-term effects of climate change on the agency’s mission and operations. The Adaptation Plan addresses all elements presented in the Council on Environmental Quality (CEQ) document “Preparing Federal Agency Climate Change Adaptation Plans” dated February 29, 2012, is consistent with CEQ guidance, and meets all requirements of E.O. 13514. The Adaptation Plan is submitted as an appendix to the Agency Sustainability Plan.

USAID’s Adaptation Plan focuses on agency-level actions to understand and address climate change risks and opportunities for USAID’s mission, programs, and operations. Its organization aligns with the *USAID Climate Change and Development Strategy*, a document that informs the Agency’s direct adaptation programming – using Global Climate Change Initiative funding – in vulnerable developing countries, and which also highlights the need to integrate climate change in Agency programming, learning, policy dialogues and operations.

USAID’s first Adaptation Plan was released for a 60-day public comment period, during which USAID received comments from 13 individuals, organizations, and coalitions. Those comments have been carefully considered in the revision of this document.

In 2012, the Agency also completed the following tasks requested by CEQ as part of E.O. 13514:

- **Adaptation Policy Statement.** USAID submitted and made publically available an agency-wide climate change Adaptation Policy Statement, signed by the head of the agency, which commits the Agency to adaptation planning to address challenges posed by climate change to USAID’s mission, programs, and operations. The Adaptation Policy Statement can be found in *Appendix I. USAID Climate Change Adaptation Policy Statement*.
- **High Level Vulnerability Analysis.** USAID submitted a preliminary high-level analysis of agency vulnerability to climate change to the Chair of CEQ. This analysis was used to inform the USAID Program Vulnerability Assessment section (Section II.B) of this Plan.

These tasks helped build a foundation for USAID’s Adaptation Plan presented below, which is organized into the following four sections: (I) USAID Policy Framework for Climate Change Adaptation; (II) Agency Vulnerability Assessment: Analysis of Climate Change Risk and Opportunities; and (III) Agency Adaptation-Related Actions.

I. USAID POLICY FRAMEWORK FOR CLIMATE CHANGE ADAPTATION

Consideration of climate change in strategic planning, program design and implementation, and operations is essential to the success of USAID's mission, carried out through activities that span the globe. USAID seeks to maximize the sustainability and resiliency of its development investments in the face of climate change-related stressors, and build the capacity of its partners and beneficiaries to prepare for climate impacts. Furthermore, there is an opportunity for USAID to serve as a critical part of the climate change solution by promoting vulnerability reduction through efforts related to governance, disaster preparedness, health, food security, and environment.

USAID's Adaptation Plan lays out a process and identifies actions that will help to achieve climate resilience in USAID's mission, programs, and operations. The Plan is aligned with the *USAID Climate Change and Development Strategy* published in January 2012, which highlights two strategic objectives that focus on understanding and reducing the impacts of climate change:

- *SO 2 Increase resiliency of people, places, and livelihoods:* 1) improve access to science and analysis for decision making, 2) establish effective governance systems, and 3) identify and take actions that increase climate resilience;
- *SO 3 Integration of climate change into Agency programming, policy dialogues, and operations to build resilience:* 1) integrate climate change across USAID's development portfolio, 2) elevate the role of development in climate change dialogues and policy, and 3) lead by example.

As part of these strategic objectives, USAID's Adaptation Plan focuses on six overarching objectives to facilitate the resilience of USAID mission, programs, and operations. These objectives are aligned with the *USAID Climate Change and Development Strategy* roadmap and include: *Guidance and Training, Pilot Activities; Research and Information; Evaluation and Learning; Partnerships, and Inreach and Outreach.* USAID's Adaptation Plan identifies near and longer-term actions for each of these objectives.

The process of Agency adaptation planning, implementation, and evaluation described in USAID's Adaptation Plan will be led by the Agency Global Climate Change (GCC) Coordinator, who will work closely with technical experts and Agency leadership across functional and regional bureaus and Missions to implement the Plan. In accordance with the *USAID Climate Change and Development Strategy* roadmap, the GCC Coordinator will lead a process to more formally identify roles and responsibilities within the Agency for implementation of USAID's Adaptation Plan.

II. AGENCY VULNERABILITY ASSESSMENT: ANALYSIS OF CLIMATE CHANGE RISK AND OPPORTUNITIES

In September 2011, USAID prepared a preliminary high-level analysis of the Agency's vulnerability to climate change. Building on that initial work, this vulnerability analysis identifies the challenges posed by climate change to USAID's mission, programs, and operations. The results of this analysis informed the development of specific actions that USAID will undertake in fiscal year 2014 and beyond to better understand and address

the risks and opportunities presented by climate change. The following section presents an analysis of the Agency's vulnerability to climate change, as it may affect USAID's 1) mission; 2) programs; and 3) operations.

A. USAID MISSION VULNERABILITY ASSESSMENT

The mission of USAID is expressed in terms of a twofold purpose: 1) to advance U.S. foreign policy investments and 2) to improve the lives of individuals in the developing world. USAID recognizes that climate change could have a substantial negative impact on development efforts designed to advance this purpose. Climate change is also likely to interact with the goal and objectives of the Foreign Assistance Framework for which USAID is responsible.

The Agency relies on successful implementation of programs and smooth and efficient operations to fulfill its purpose, goals, and objectives. Because the Agency has extensive investments in climate-sensitive sectors located in climate-vulnerable regions across the world, climate change stressors are likely to impact the implementation of programs and smooth operations. USAID is also reliant on grantees and contractors for executing elements of its mission, and these partners' operations may also be vulnerable to climate change.

For example, climate changes will impact agriculture programs, ecotourism and biodiversity programs, flood control and sewerage projects in large urban centers, and waterborne and vector-borne disease control efforts around the world. On the operational side, climate impacts may cause structural damage to assets, increase health and safety concerns for staff, disrupt transportation infrastructure or utility services, and undermine the security of facilities and personnel. The risk posed to infrastructure and programs changes over time. Impacts will have the greatest effect on investments and policy decisions with a lifetime of 20 years or more. For shorter time frames, programs and operations generally need to be aware of and resilient to current climate variability rather than long-range climate change impacts.

The following sections provide a detailed discussion of the Agency's programmatic vulnerability and operational vulnerability. Understanding and addressing these vulnerabilities will be central to USAID's ability to fulfill its mission.

B. USAID PROGRAM VULNERABILITY ASSESSMENT

Climate change may have significant implications for the effectiveness of USAID's programming and the sustainability of its investments. As discussed in USAID's September 2011 *High Level Analysis of Agency Vulnerability to Climate Change*, key program vulnerabilities are reflected in larger programming streams. In particular, programs in areas like agriculture and food security, global health, water and sanitation, infrastructure, and disaster readiness and humanitarian response are highly vulnerable to climate change.

In order to illustrate the potential vulnerability of its programs for the purpose of drafting this Plan, in 2012 USAID conducted a high-level desk review of climate vulnerabilities for twenty-two country and regional Missions. To ensure diversity, countries were selected to be representative of a wide range of geographies, climate stressors, development programs, and adaptation priorities. The selection is not indicative of which countries USAID considers to be most vulnerable. *Appendix III. Country and Regional Vulnerability Profiles* presents the resulting series of profiles that identify illustrative climate risks and opportunities facing current USAID programs.

This section presents an overview of USAID’s program vulnerabilities, drawing on the lessons learned from these country profiles and incorporating the program-stream assessment presented in the 2011 *High Level Analysis of Agency Vulnerability to Climate Change*.

PROJECTED WEATHER AND CLIMATE CONDITIONS

Climate change is expected to alter current weather and climate conditions around the globe, including temperature, precipitation, extreme events, and sea level. These changes in climate will also cause a series of cascading impacts, such as changes in the frequency and intensity of flooding, drought, and storm surge; and changes in the range and prevalence of disease vectors and related diseases. Because USAID has a global presence, it is important for the Agency to understand how projected changes in climate and other related impacts will differ in different countries, regions, and even specific cities and towns. Regions within countries will have very different changes and vulnerabilities, an important consideration in actions.

KEY CLIMATE IMPACTS AND VULNERABILITIES

The type and degree of impacts and vulnerabilities across USAID’s partner countries will be as diverse as the projected changes in climate, with consequences for human health, food security, economic growth, livelihoods, and biodiversity, among other objectives. For example, extreme heat events and changes in vector-borne diseases will stress human health. Changes in temperature, precipitation, and flooding will likely have consequences for people whose livelihoods depend on rain-fed crops and for countries in which agriculture is a key economic sector. Drought and, in coastal locations, salt water intrusion could limit the availability and quality of freshwater supplies. Furthermore, climate change may threaten coastal and forest ecosystems that populations rely on, through erosion and landslides, salt water intrusion, forest fires, and the arrival of new invasive species. Finally, more intense flooding, storm surge and rising sea levels may inundate communities and damage infrastructure. Many USAID missions undertake more targeted and more detailed vulnerability assessments to inform direct adaptation programming.

KEY USAID PROGRAM VULNERABILITIES

This section provides a high-level overview of the risks and opportunities that climate change poses to some of USAID’s major programming streams, as reported in the September 2011 *High Level Analysis of Agency Vulnerability to Climate Change*.

AGRICULTURE

- *USAID FY10 investment¹: \$1,005,876,872*
- *USAID FY11 investment²: \$ 1,013,194,362*
- *USAID FY12 investment³: \$ 1,056,568,843*

Climate change is a critical cross-cutting issue that can affect the sustainability of investments in agricultural development and food security. Agricultural productivity is already being adversely impacted by increased temperatures, increased rainfall variability, increased incidence of pests/diseases, and more extreme weather events.

¹ “Where does USAID’s money go?” With data from USAID/M/CFO/FS as of March 31, 2011

² “Where does USAID’s money go?” With data from USAID/M/CFO/FS as of September 30, 2011
<http://www.usaid.gov/policy/budget/money/>

³ “Where does USAID’s money go?” With data from USAID/M/CFO/FS as of September 30, 2012

Most countries where USAID works depend on agriculture as a primary livelihood sector and economic mainstay. USAID invests significant funding in increasing agricultural productivity, particularly under the Feed the Future presidential initiative. At the G8 Summit in L'Aquila, Italy in July 2009, President Obama pledged \$3.5 billion for agricultural development and food security over three years. In FY10, FY11 and FY12, USAID spent over \$1 billion each year on agriculture programs. Some of USAID's agriculture programs offer opportunities to help people adapt to climate variability and change, while others may be undermined in delivering on their objectives without factoring in climate considerations.

The focus countries for US food security programming include Ethiopia, Ghana, Kenya, Liberia, Mali, Malawi, Mozambique, Rwanda, Senegal, Tanzania, Uganda, and Zambia in Africa; Bangladesh, Cambodia, Nepal, Tajikistan in Asia; and Guatemala, Haiti, and Honduras in Latin America. These countries are also highly vulnerable to the adverse impacts of climate change. By 2020, yields from rain-fed agriculture could be reduced by up to 50 percent in some countries in Africa.⁴ A one-degree Celsius change in temperature will reduce rice productivity by 10 percent; currently, maize production in Africa is seeing as much as 75 percent losses due to two-degree increases in peak temperatures. By the 2050s, freshwater availability in much of Asia is projected to decrease substantially.⁵ In Latin America, changes in precipitation patterns and the disappearance of glaciers will significantly affect water availability for agriculture. In small island states, deltas, and low-lying coastal zones, salt-water intrusion from rising sea levels will reduce the supply of freshwater and threaten the viability of land for agriculture.

Expanding and intensifying agricultural productivity on a large scale in order to increase food security could also adversely affect water resources and aquatic ecosystems, fisheries, and forests, reducing the resiliency of people and the environment to climate stresses and natural disasters. The Feed the Future guide recognizes the need to “integrate environmental and climate change concerns into our investments and support and build the capacity of partner countries to take advantage of opportunities in effective resource management and proactive adaptation to climate change.” This should include assessing potential climate risks that could undermine the performance and sustainability of a proposed investment and incorporating measures into the project to reduce the vulnerability of the project to these risks. As noted in Section II.A, impacts will have the greatest effect on investments and policy decisions with a lifetime of 20 years or more. For shorter time frames, programs and projects generally need to be aware of and resilient to current climate variability rather than long-range climate change impacts. In both respects, it is important to consider sustainable food systems in relation to the global trends of both climate change and urbanization, particularly in Asia and Africa.

GLOBAL HEALTH

Climate change and variability can impact programs within USAID's Global Health Initiative technical areas, including maternal and child health, malaria, neglected tropical diseases, nutrition, and water supply and sanitation. More broadly, climate change can also have profound adverse impacts on health systems and gender inequality, important cross-cutting issues for USAID Global Health programs. While some of USAID's health programs may be undermined in delivering on their objectives without factoring in climate, others offer opportunities to help people adapt to climate variability and change.

Climate change and variability can impact health programs both directly, through heat stress, changes in the hydrologic cycle that drive droughts and floods, increased ground-level ozone, and enhanced pollen

⁴ IPCC Fourth Assessment Report

⁵ IPCC Fourth Assessment Report

production; and indirectly, through impacts on natural and human systems that curtail access to water and food, shift the movement of disease vectors, or interrupt health-care delivery. Changes in air quality associated with climate change can have significant health impacts, particularly for children and pregnant women. Climate change will increase the severity and frequency of droughts and floods; the subsequent displacement and clustering of people creates unhygienic conditions that are conducive to the spread of cholera and other water-borne diseases. The urban poor, who predominately live in high-risk areas like floodplains, are particularly susceptible to diarrheal disease due to poor sanitary conditions and episodic flooding; climate change will exacerbate these problems. More frequent or more severe extreme weather events may also result in more event-related deaths, injuries, and infectious diseases. Changing temperatures alter the geographic range and seasonality of infectious vector-borne diseases like malaria, yellow fever, and dengue fever. Along with changing agricultural conditions, diet and nutritional status may be impacted; however, the impacts could be positive, negative, or neutral, depending on local conditions.

USAID will need to ensure that it takes climate change impacts into account in the design and implementation of health programs in these areas, in order to anticipate emerging risks, target efforts, ensure the sustainability of programs, and maximize the effectiveness of Agency investments.

MALARIA

- *USAID FY10 investment⁶: \$500 million*
- *USAID FY11 investment⁷: \$578 million*
- *USAID FY12 investment⁸: \$603 million*

Rising temperatures will shift and expand disease transmission zones, alter seasonality, and increase the activity of vectors that transmit diseases like malaria, dengue fever, and yellow fever. In some cases, rising temperatures lead to a decreased incubation period for the parasite, hastening the point at which the mosquito can transmit disease. Whether these changes will actually lead to a greater incidence of the disease will be complicated by factors including control measures, the availability of drugs, population changes, changes in forest cover, migration, and urbanization. USAID's existing malaria programs will need to assist their health partners to be prepared to anticipate changes and possibly respond in new geographic locations.

WATER, SANITATION, AND HYGIENE (WASH)

- *USAID FY10 investment⁹: \$520.4 million*
- *USAID FY11 investment¹⁰: \$360.1 million*
- *USAID FY12 investment¹¹: \$456.801 million*

USAID's WASH programs seek to increase access to drinking water supply or sanitation services, improve the quality of those services, and/or promote hygiene. Some of USAID's WASH programs offer

⁶ "Fast Facts: The President's Malaria Initiative (PMI)", April 2012, http://www.pmi.gov/resources/reports/pmi_fastfacts.pdf

⁷ Staff Communication

⁸ "Fast Facts: The President's Malaria Initiative (PMI)", April 2013, http://www.pmi.gov/resources/reports/pmi_fastfacts.pdf

⁹ "Safeguarding the World's Water: 2011 Report on USAID Fiscal Year 2010 Water Sector Activities", July 2011.

http://www.usaid.gov/our_work/cross-cutting_programs/water/WaterReport_2011.pdf

¹⁰ Staff communications

¹¹ Internal communication, USAID Water Office

opportunities to help people adapt to climate variability and change, while others may be undermined in delivering on their objectives without factoring in climate.

Climate variability and change place stress on water supply, sanitation, and hygiene systems that are often already under considerable stress from a variety of sources in developing countries. Climate-related stresses might include more intense severe weather events, less predictable rainfall and water flows, and increasing evaporation rates. Combined with increased temperatures, these stresses could lead to an increase in water-borne diseases. In urban areas, increased flooding can have a particularly serious impact due to high density levels and lack of services, particularly in poorer neighborhoods.

Climate and weather impact water supply and sanitation services both directly and indirectly. Potential climate change impacts will vary based on local geography, climate and vulnerability to climate stresses. Table 3 lists some of the potential impacts on WASH-related objectives.

Table 1. Potential Climate Change Impacts on WASH-Related Objectives

Direct Climate Change Impacts	Indirect Climate Change Impacts
<p>Damage to infrastructure due to extreme weather events, coastal inundation, or increasing flows due to melting snowpack and glaciers</p> <p>Contamination of water supplies through saltwater intrusion or contaminated runoff resulting from high intensity rainfall events or saltwater intrusion due to sea level rise, land subsidence, and/or lowering of water tables</p> <p>Flooding due to increasing rainfall over shorter periods of time</p> <p>Changing inputs to water storage due to changes in volume and timing of rainfall, or surface and groundwater flows</p> <p>Increased evaporative losses as temperature rises</p>	<p>Lost productivity due to disruptions in piped water and sewerage services if infrastructure is damaged</p> <p>Spread of waterborne diseases if treatment systems fail or flooding occurs</p> <p>Increasing competition for water among sectors if supplies become more scarce and/or demand rises</p> <p>Unhygienic conditions in the event of storms or flooding and due to decreased quantity of available water</p> <p>Higher operating costs and/or shorter lifetime of water systems, potential for rising water prices</p> <p>Displacement of populations if water resources shift or are impaired</p> <p>Increased travel distances to collect water if supplies are no longer safe and productive</p> <p>Conflict over scarce water resources</p>

Water and sanitation programming addresses many disease vectors and circumstances, including diarrheal diseases, cholera, dengue, and hepatitis. Almost a billion episodes of child diarrhea are treated with lifesaving oral rehydration therapy each year, reducing child deaths from diarrheal disease by more than 50 percent. Breastfeeding, improved water supplies and sanitation, zinc supplementation, and continued feeding of children with diarrhea are other integral components of USAID’s strategy to reduce diarrheal diseases and their effects. Integration of climate change information and early warning systems could improve targeting assistance and effectiveness.

INFRASTRUCTURE

- *USAID FY10 investment¹²: \$1,073,873,676*
- *USAID FY11 investment¹³: \$690,006,767*
- *USAID FY12 investment¹⁴: \$1,334,660,078*

Climate change can affect infrastructure of all types, including transportation systems, water and waste systems, buildings, and communication networks. Because infrastructure often has long lifetimes, it is especially vulnerable to climate changes. Climate change threatens infrastructure ranging from rural roads in floodplains to urban buildings on the coast. Climate-related damage to infrastructure can also have significant secondary impacts on other sectors. For example, education programs can be severely disrupted when schools are damaged, and trade and industry are negatively affected by damage to transport networks.

Urban areas are especially vulnerable to climate change impacts, including increased flooding, storm surges, high rainfall events (that cause landslides), and sea level rise. This vulnerability is critical, as urban areas are home to over half of the world's population and much of its economic activity. Because many cities have naturally developed in coastal zones and flood plains, urban areas are often highly exposed to these impacts. For example, low-lying coastal areas are on average more urbanized than the rest of the world. The vulnerability of cities is compounded by characteristics that increase the severity of climate change impacts. These factors include: concentrated populations, large informal settlements built without regard to official land-use controls and building standards, high concentrations of solid and liquid wastes, large areas of impermeable surfaces that accelerate runoff and disrupt natural drainage, and the potential for interaction between natural disasters and industrial disasters (such as cyclone damage to oil refineries leading to contamination of water supplies). Without specialized urban programming on climate change, developing country cities will be hard-pressed to cope with these unprecedented challenges. USAID has begun implementing urban climate change adaptation programs in recognition of this need, but these efforts are still on a limited scale.

Infrastructure projects conducted by USAID increasingly consider climate change impacts in their design and construction. However, this planning is typically carried out in an ad-hoc fashion at the project level, rather than being a consistent and routine practice across all Agency units that undertake construction activities (e.g., clinics, schools, roads, etc.). As noted in section III.B, USAID has recently completed 9 fact sheets and an overview brief that highlight potential impacts of climate change on different infrastructure types; in addition, the annual infrastructure course for USAID staff has integrated a half-day adaptation session.

¹² "Where does USAID's money go?" FY10

¹³ "Where does USAID's money go?" With data from USAID/M/CFO/FS as of September 30, 2011
<http://www.usaid.gov/policy/budget/money/>

¹⁴ "Where does USAID's money go?" With data from USAID/M/CFO/FS as of September 30, 2012

DEMOCRACY, HUMAN RIGHTS AND GOVERNANCE (DRG)

- *USAID FY10 investment¹⁵: \$1,639.8 million*
- *USAID FY11 investment¹⁶: \$1,746.1 million*
- *USAID FY12 investment¹⁷: \$2,138.8 million*

Climate variability and change will have significant impacts on a wide range of sectors, and these impacts could in turn affect USAID's democracy, human rights, governance, and conflict programming. Rising temperatures and increasing precipitation variability may reduce the availability and quality of fresh water or viability of agricultural crops, both of which are vital to public health and economic development. Flooding and other extreme climate events can disrupt transportation networks, or cause damage to housing, energy and sanitation infrastructure. Disruption in these sectors can result in severe resource scarcity, disease outbreaks, increases in internal and external migration, and a host of other social and political impacts that could affect existing and planned USAID DRG programming. In areas with high risk factors for conflict, climate change stresses can aggravate tensions and contribute to conflict. Governance systems, including courts, local governments, legislatures, and oversight and service delivery agencies, may be more strained in developing regions that are particularly sensitive to climate change.

As climate change progresses and developing nations' populations rapidly expand there will likely be an increasing need for democracy, human rights and governance programing that addresses these challenges. USAID is currently working with local and national governments in developing nations to create awareness of climate change risks in order to improve their capacity to respond and adapt to climate change impacts. Such actions may require an improved understanding of the role of democracy, human rights and good governance in policies that enable or impede climate-resilient development as well as efforts to address the human rights implications of climate change and improve governance frameworks to be more participatory, inclusive, and accountable.

DISASTER READINESS

- *USAID FY10 investment¹⁸: \$62,298,134*
- *USAID FY11 investment¹⁹: \$106,263,764*
- *USAID FY12 investment²⁰: \$157,449,576*

USAID already allocates significant resources to help vulnerable countries and communities prepare for extreme weather events such as droughts, floods, and hurricanes. In the development context, the extent of damages from these extreme events is a function of variables such as development pressures, poverty, and lack of adaptive capacity. Climate change threatens to exacerbate this situation, by increasing the severity of

¹⁵ Foreign Assistance Dashboard FY10

¹⁶ Foreign Assistance Dashboard FY11

¹⁷ Foreign Assistance Dashboard FY12

¹⁸ "Where does USAID's money go?" FY10

¹⁹ "Where does USAID's money go?" With data from USAID/M/CFO/FS as of September 30, 2011

<http://www.usaid.gov/policy/budget/money/>

²⁰ "Where does USAID's money go?" With data from USAID/M/CFO/FS as of September 30, 2012

these events. The success of disaster readiness programming therefore will increasingly depend on consideration of climate change impacts in risk assessment, planning, and implementation.

Climate change may necessitate new protective measures for coastal homes and infrastructure; updated zoning codes; expanded early warning systems; new livelihood alternatives; and in some cases even mass evacuations or permanent migration. It will become even more important for policymakers and public officials, farmers, businesses, service providers, vulnerable households, and other stakeholders to be able to access forecasts and information about how they can prepare for and cope with extreme events.

Adaptation efforts can be highly cost-effective: A study presented at a United Nations Framework Convention on Climate Change (UNFCCC) workshop found a positive benefit-to-cost-ratio of 7:1 for improved weather information availability for farmers. USAID has estimated that disaster risk reduction efforts have a similar 7:1 benefit-to-cost-ratio, and the Department of Energy's weatherization program estimated a 7:1 benefit-to-cost-ratio for improved insulation and building-shell maintenance.

CHALLENGES TO ADAPTATION

While the specific challenges that populations, countries, and regions face in reducing vulnerability are dependent on the local context, some overarching themes emerge; the most prominent common challenges relate to a lack of data, evidence base, and capacity.

- *Lack of data.* A lack of localized climate data and climate projections that are relevant and appropriate to decision-making results in a gap in understanding climate impacts and vulnerabilities, thus making it difficult for place-based response strategies to be developed. More location-specific data, particularly related to the timing and frequency of precipitation extremes, is required to inform USAID's investments in climate-smart agriculture, infrastructure, and risk reduction activities related to disaster preparedness. Continued scientific research, monitoring, and technical capacity may help address this challenge, along with attention to data access and management over time. USAID is supporting the Climate Services Partnership, SERVIR, and FEWS-NET to help generate actionable information and build capacity.
- *Lack of an evidence base.* Substantial knowledge on the effectiveness of adopting or scaling some adaptation options may not exist for some partners or USAID missions. Such knowledge gaps may include knowing what activities do and do not work in certain areas, how to scale these activities, and how to develop new adaptation methods for areas where appropriate ones do not exist. USAID is working to improve methods for monitoring and evaluating climate change adaptation so that we can assess the success, scalability, and replicability of direct climate change programming and integration activities.
- *Lack of capacity.* USAID partner countries require greater capacity to understand and address climate change risks and opportunities. Vulnerability assessments and adaptation strategy development and implementation require scientific, technical, planning, financial, and coordination capacity, which many countries lack. Furthermore, many countries must direct time and resources into dealing with more immediate development challenges and defer considering adaptation actions. This challenge can begin to be addressed through increased capacity building for government officials and civil society to mainstream climate change into sectoral plans and incorporate it into the mandate and capabilities of relevant national and local authorities. Education can also play an important role in

climate change adaptation and developing behaviors that reorient society toward enhancing resilience and sustainable practices.

- *Unclear or weak tenure governance and property rights.* How rights over land and other resources are allocated and managed can significantly affect the success of adaptation measures. Zoning, land use planning, building codes, relocation from high-risk areas, and other adaptation measures all affect or are affected by tenure governance and the status of property rights. Vulnerability assessments and adaptation planning will need to consider the relevance of these issues, particularly as they relate to those most vulnerable.

C. USAID OPERATIONS VULNERABILITY ASSESSMENT

USAID depends on smooth operations, dependable infrastructure, and a safe and healthy workforce to achieve the agency's purpose, goals, and objectives and to successfully implement its development programs and projects. Changes in climate may jeopardize the continuity and effectiveness of some USAID operations and assets. Climate change impacts could also have financial implications, by increasing the cost of operating, maintaining, and replacing assets and infrastructure.

This section serves as an initial, high-level assessment of the vulnerability of USAID operations, infrastructure, and human resources to projected climate change. To conduct this high-level assessment of vulnerability, four operational areas were considered. These areas focus on operational factors most important to USAID, and incorporate the 13 areas identified in the CEQ guidance. The four areas are:

- **Assets**—Buildings, equipment, facilities, and vehicles owned by USAID or upon which USAID operations depend. This includes assets that are both rented and owned; both independently operated and co-located with the Department of State; and both domestic and overseas.
- **Infrastructure and Support Systems**—Including information and communications technology, transportation, and utilities.
- **Health and Safety**—Including workforce welfare.
- **Security**—Including potential implications of climate change on civil unrest and evacuation needs.

ASSETS

USAID operates from more than 100 offices, including 97 missions located around the world, seven leased offices in Washington, DC, and a training center in Arlington, Virginia. Few facilities are directly owned by USAID; approximately 85 percent of USAID offices are leased or co-located on U.S. Department of State (DoS) property. For example, 75 of the 97 missions are co-located with a U.S. Embassy or Department of State facility. Globally, USAID owns a total of 13 offices, warehouses, and facilities. In addition, USAID invests in new facilities using the Capital Investment Fund. USAID also relies on rented residential properties, particularly for employees located overseas.

Changes in climate will require buildings and other assets to operate over a different range of weather and climatic conditions; these changes may push the boundaries of the design standards of some facilities. USAID should consider this changing stress when signing long-term leases, particularly in older buildings. Changes in temperature, precipitation, sea level, storm surge, and extreme events will also affect facility infrastructure and operations. For example, more frequent or more severe extreme events may increase deterioration or damage

to building exteriors, office interiors, or equipment and vehicles, and reduce the lifetime for facilities and assets. High temperatures and heat waves may raise internal cooling demands or building temperatures. More humid weather may affect buildings in warm weather climates through increased mold, fungi, or insect infestations. Increased precipitation (both in terms of average rainfall and the number of intense rainfall events) may lead to greater risk of flooding. Table 2 provides several examples of potential climate change impacts to USAID assets.

These impacts can have serious implications for infrastructure, operations, and services, such as loss of building value, higher repair and maintenance costs, increased safety concerns, elimination or interruption of services, or compromised worker well-being.

Table 2. Examples of Potential Climate Change Impacts on USAID Assets

Stressors	Primary Impacts
Temperature Change	Premature deterioration of building materials due to thermal stress, biochemical activity, freeze-thaw, etc. Changes in the dimension or shape of building materials and equipment from cracking and fissuring Insect infestations, e.g., termites, impacting building structures
Precipitation Change	Increased precipitation may result in: <ul style="list-style-type: none"> • Seepage and flooding in building interiors • Destruction of building due to landslides • Physical changes to building materials and finishes and increased prevalence of molds and fungi • Corrosion of metals • Sewage overflow Decreased precipitation may result in: <ul style="list-style-type: none"> • Increased soil cracking and subsidence in areas with clay soils and reduced soil moisture • Inadequately functioning and/or stressed water and waste systems caused by inadequate water supplies
Sea Level Rise & Storm Surge	Closure and/or diminished access to buildings in low-lying coastal areas due to permanent inundation or temporary flooding Waste containment problems
Extreme Events	Reduced durability of exterior surfaces due to erosion and weathering Accelerated deterioration of building shell due to increase in dust, particular matter, and smoke

INFRASTRUCTURE AND SUPPORT SYSTEMS

USAID’s operations depend on a variety of infrastructure and support systems. These include information and communications technology, transportation infrastructure, and utilities.

INFORMATION AND COMMUNICATIONS TECHNOLOGY

Information and communications technology (ICT) includes information technology systems, infrastructure, and architecture. Key USAID ICT systems include USAID’s knowledge management system; small, automated information management systems; the Foreign Assistance Coordination and Tracking System (joint system with the Department of State); the Global Acquisition and Assistance System; worldwide telecommunications operations; and centralized network, server, and security platforms in DC and overseas. These systems are fundamental for coordination of USAID activity, including external coordination; for communications with missions and partner countries; and for transferring funding for program activities. Without reliable ICT, communications and coordination could break down and missions, programs, and partner countries could lose access to funding.

ICT is vulnerable to a variety of climate change impacts. Below-ground infrastructure could be affected by flooding, sea level rise, subsidence caused by changes in precipitation, and damage to surface infrastructure (such as roads). Above-ground infrastructure could be affected by changes in precipitation, extreme wind, and ground instability. Wireless-, radio-, or satellite-based services could be affected by increasing temperatures and precipitation. Table 3 provides additional examples of climate stressor impacts on ICT. These impacts could degrade infrastructure; disrupt service; reduce service availability and quality; and change operating, maintenance, and customer support costs.

Table 3. Examples of Potential Climate Change Impacts on ICT Infrastructure and Services²¹

Stressors	Transmissions Infrastructure	Wireless Signals	Buildings and Equipment
Temperature Change	Sinking and tilting of telecommunications towers due to unstable soil	Decreased range of wireless signal transmission, resulting in the location / density of wireless masts becoming sub-optimal	Overheating of data centers, exchanges, base stations, etc.
Precipitation Change	Flooding of low-lying / underground infrastructure and access-holes, particularly in coastal areas, flood plains, and cities Exposed cables / trunk routes due to erosion or damage of transportation infrastructure	Reduced quality and strength of wireless service due to increased rainfall	Changes in requirements to maintain internal environments of system devices due to changes in humidity
Sea Level Rise / Storm Surge	Increased flooding and saline corrosion of infrastructure in low-lying/coastal areas	Changes in reference datum for telecommunication and satellite transmission calculations	Closure or reduced access to low-lying coastal buildings due to permanent or temporary flooding
Changes in Extreme Storms and Wind	Fallen cell towers, telephone poles from extreme wind or fallen trees Increased damage to above-ground infrastructure	<i>Minimal impact</i>	<i>Minimal impact</i>

TRANSPORTATION

USAID relies heavily on transportation systems to facilitate international travel that is critical for operations. In FY2012, USAID employees took 18,711 Washington-originated business trip segments. USAID travel includes operational travel to development sites, to host countries, for training, and in response to disasters, as well as mandatory travel to post assignments, for home leave, for rest and recuperation, and for shipment of equipment. To facilitate this movement of people and goods, USAID relies on air transportation; ground transportation, including roads and rail; and shipping. As with communications, disruptions in transportation and travel could have significant implications for external coordination and program implementation.

Some aspects of the transportation systems upon which USAID relies are vulnerable to climate changes, including changes in temperature, precipitation, sea level rise, and extreme weather events. Many climate-related impacts are already seen today and could increase in frequency or severity due to climate change. Increases in extreme weather can ground flights, damage infrastructure, and increase hazards due to debris.

²¹ Table is largely based on Table 4.1 of AEA, 2010. Adapting the ICT Sector to the Impacts of Climate Change: Final Report. [_http://archive.defra.gov.uk/environment/climate/documents/infrastructure-aea-full.pdf](http://archive.defra.gov.uk/environment/climate/documents/infrastructure-aea-full.pdf)

Extreme temperatures can expand and buckle railway tracks and bridge joints, as well as overheat electrical systems. Flooding can wash out culverts and track supports; disrupt travel on roads, rail, and runways; and increase soil erosion and silt deposition. In the longer-term, sea level rise can permanently inundate coastal transportation networks, rendering roads, airports, and ports unusable. Table 4 provides examples of potential climate change impacts on transportation infrastructure. These impacts are likely to cause interruptions in transportation services, which USAID relies on and may ultimately affect the ability for USAID operations to function reliably.

Table 4. Examples of Potential Climate Change Impacts on Transportation Infrastructure

Stressors	Roads	Railways	Ports	Airports
Temperature Change	More rapid road asphalt deterioration Increased maintenance and construction costs due to thawing permafrost	Expansion and buckling of railway tracks, joints Overheating of rail electrical systems and communications equipment	Thermal expansion of bridge joints, paved surfaces Higher land-side electricity consumption to meet increased refrigeration needs	Asphalt deterioration on runways Length of runways inadequate due to decreasing air density
Precipitation Change	Increased flooding of roadways Increased soil erosion and washout of road- and tunnel-supporting culverts during flash floods	Increased flooding on tracks and stations Washout of track supports (ballast)	Changes in scour rates in response to increased peak stream flow Channel closures due to increased silt deposition	Travel disruptions due to runway flooding Damage to airport infrastructure due to inundation
Sea Level Rise	Erosion of road base	Flooding of underground pathways and tunnels	Diminished access due to rising sea levels	Erosion of coastal airport runways
	Permanent inundation of road, rail, port, and airport infrastructure			
Storm Surge	Temporary flooding of and diminished access to roadways, rails, ports, and airport facilities Closure of facilities due to debris (e.g., cranes) and damage to infrastructure (e.g., clogging of drainage systems)			
Extreme Wind	Damage to road-side signage and lighting Road closures and increased safety hazards due to debris	Service disruption due to damage and debris Damage to railway stations	Damage to port structures Disruption of operations due to extreme wind	Disruption to air travel and freight services due to flight grounding Damage to aircraft service equipment, hangars, etc.

UTILITIES

USAID relies on energy, water, and sewage utilities to maintain day-to-day operations. In the large majority of missions consolidated with the U.S. Department of State, these functions are managed by the State Department.

Climate changes could result in less reliable and more expensive utility services. Impacts on supply systems could increase energy prices. Increasing temperatures may cause additional cooling requirements resulting in further increased energy costs. Increased demand and extreme weather events could increase the frequency, severity, and reach of energy blackouts. Increased temperatures, extreme flooding, and drought could all degrade water quality and availability. In areas with no increase in precipitation, increased temperatures would

also increase evaporation in reservoirs and potable water supplies. Elevated evapotranspiration rates would further diminishing surface and ground water supplies, and, therefore, overall availability of water for human consumption. Water purification systems may be stressed by the degraded water quality experienced from storm surge, sea level rise, and flooding. The same is true of sewage systems, which are subject to overflow. Table 5 presents a sample of potential climate change impacts on utilities that support USAID operations and programs. It is likely that these impacts will cause disruptions in utility services or result in higher utility service costs, ultimately affecting USAID’s operations.

Table 5. Potential Climate Change Impacts on Utilities

Stressors	Energy	Sanitation	Solid Waste Management
Temperature Change	Increased capital costs for building new generation, transmission, and distribution infrastructure to support greater demand Changes in hydropower (e.g., changes in snowpack melt) and biomass potential	Lower water quality from increased algal blooms, pathogens, and lower dissolved oxygen	Increased odor and pest activity requiring more frequent waste collection Overheating of collection vehicles and sorting equipment Increased risk of fire at disposal sites
Precipitation Change	Disruptions in fuel transportation through damage to infrastructure (e.g., flooding, pipeline damage)	Inundation of outfall causing discharge to back-up Damage to collection systems and treatment facilities by flooding	Flooding of collection routes and landfill access roads, making them inaccessible Increased need for enclosed or covered sorting facilities
Sea Level Rise & Storm Surge	Permanent and/or temporary inundation of extraction infrastructure, refineries, power plants, renewable energy systems, and transmission and distribution lines, resulting in disruptions to energy services	Inundation of low lying sanitation facilities and systems requiring relocations Rising water tables decreasing effectiveness of latrines, septic systems, and leach field systems	Permanent and or/ temporary inundation of collection, processing, and disposal infrastructure Deterioration of impermeable lining
Extreme Events	Disruption of operations (e.g., temporary shutdown) Change in capacity for solar and wind power Damage to power lines	Prolonged drought leads to lower flows in receiving streams, reducing the capacity of water resources to absorb and dilute pollution, impacting treatment performance	Extreme wind leads to dispersal of waste from collection sites, collection vehicles, processing sites, and landfills

HEALTH AND SAFETY

The USAID workforce, including contractors, is fundamental to the successful operation of USAID programs. As of September 2012, USAID had 9,698 employees; about 70% of these employees are stationed overseas.²² USAID must ensure the health, safety, and well-being of their employees and contractors located both in the United States and overseas.

Climate changes may threaten worker well-being in numerous ways. Flooding and extreme weather events currently affect commutes, decreasing safety and reducing the ability of people to get to the office; severe weather events can be life-threatening. Changing patterns of severe weather due to climate change are therefore likely to have impacts on worker well-being as well as on their ability to fulfill work assignments. In

²² Data from USAID Management Bureau

addition, changing patterns of disease could compromise the health of workers in some locations, particularly in locations with poor health services. For example, more USAID staff living overseas may be exposed to malaria and need to use anti-malarial drugs. Increasing temperatures could require additional energy to increase air conditioning and might contribute to heat stress on the job (i.e., if increasing energy demands result in energy outages). Worsening conditions in overseas locations could require USAID to increase the number or dollar amount of “difficult-to-staff incentives.” Table 6 lists a number of the impacts climate change may have on the health and safety of USAID workers.

Table 6. Examples of Potential Climate Change Impacts on Health and Safety of USAID Workers

Stressors	Examples of Impacts on Health and Safety of USAID Staff
Temperature Change	Heat stress/ stroke or hyperthermia Respiratory diseases due to changes in ground-level ozone, particulate matter (PM), and allergens Increased risk of diseases due to changes in the ranges and activity of vectors and parasites
Precipitation Change	Reduced water availability Flooding contaminates water and food supplies with pathogens Increased risk of diseases due to changes in the ranges and activity of vectors and parasites
Extreme Events	Increased injuries from flying debris during storms with high winds Reduced water and food availability Interruption of communication, utility, and health care services

SECURITY

Finally, climate change could aggravate the conditions for unrest in USAID’s partner countries, jeopardizing the continuity and effectiveness of some USAID operations and assets. Climate change could further reduce or alter the distribution of already limited resources like food and water, or force temporary or permanent migration of communities. These situations can exacerbate existing inequalities, fostering unsafe situations if government services are disrupted in the event of disaster, particularly for marginalized populations. Such unrest could require USAID to implement additional security measures and contingency planning, including for USAID facilities and workers.

III. AGENCY ADAPTATION-RELATED ACTIONS

USAID has been investing in actions that help the Agency better understand climate change risks and opportunities and reduce vulnerabilities since 1991. For example, USAID created a position of Climate Change Coordinator in 2011. Agency activities to date have largely focused on adaptation actions within programming, though attention is beginning to be directed toward adaptation actions within USAID operations. This section presents examples of activities underway at USAID headquarters and Missions.

USAID has laid out a series of actions it will undertake to establish a process of adaptation planning, implementation, and evaluation in order to better understand and address climate change risks and opportunities for USAID’s mission, programs, and operations. While this section presents these actions in an organization consistent with the *USAID Climate Change and Development Strategy*, it comprehensively includes the information outlined in the following CEQ suggested Adaptation Plan Elements: 3. *Process of agency adaptation planning and evaluation*; 4. *Programmatic activities*; 5. *Actions to better understand climate change risks and opportunities*; and 6. *Actions to address climate change risks and opportunities*.

As previously mentioned, USAID’s ability to achieve its mission (i.e., purpose, goals, and objectives) relies significantly on the success of its programs and projects, as well as the stability of its operations. Therefore, many of the actions identified in this section focus on understanding and addressing programmatic and operational climate change risks and opportunities to ensure successful achievement of USAID’s mission. Finally, USAID expects that the actions described below will adjust and evolve over time in response to changes in need, context, interests, etc. and are therefore not static in nature.

This section is organized, like others in USAID’s Adaptation Plan, by adaptation actions related to USAID’s mission, programs, and operations. The actions are further disaggregated by time periods: fiscal year 2013 (FY13), and fiscal years 2014 thru 2016 (FY14 – FY16) to ensure consistency with the *USAID Climate Change and Development Strategy* as well as CEQ Adaptation Plan requirements.

To complement the brief summary of each action provided in the text below, *Appendix II. USAID Planned Adaptation Actions Summary Tables* provides more detailed information about each action, such as the agency lead, scale, timeframe, coordination, and challenges.

A. OVERARCHING ADAPTATION-RELATED ACTIONS SUPPORTING USAID’S MISSION

Most of the actions identified in this Plan are focused on programs and operations, which directly support the achievement of USAID’s mission. This section presents some of the overarching actions needed to guide and enable Agency adaptation planning, implementation, and evaluation in FY14 and beyond.

USAID Climate Change Adaptation Plan. The first Agency Adaptation Plan is now publically available through USAID’s website. The Plan will be disseminated to actors integral to implementation, and updated on an annual basis.

Priority Adaptation Country Funding. The Global Climate Change Initiative has identified priority countries where USAID bureaus and Missions program direct adaptation funding to help the host country address climate change vulnerabilities. Under this designation, the annual adaptation funding request for each priority country during fiscal years 2011 and 2012 ranged from \$2 million to \$5 million, and was higher for some island regions. The priority adaptation countries were identified according to criteria related to exposure, sensitivity, and capacity and willingness to respond to climate change. In addition, the selection focused on least developed countries, small island developing states, and glacier-dependent countries. The countries included Bangladesh, Barbados and the Eastern Caribbean, Cambodia, Colombia, Dominican Republic, Ethiopia, Guatemala, India, Indonesia, Jamaica, Kenya, Malawi, Maldives, Mali, Mozambique, Nepal, Peru, Philippines, Rwanda, Senegal, Tanzania, Timor-Leste, Uganda, and Vietnam, and the priority regional platforms were East Africa, Southern Africa, West Africa, Regional Development Mission Asia, and Regional Development Mission – Pacific. Each of these countries or regions is using this direct adaptation funding to implement programs to reduce the specific vulnerabilities in country. For example, in Ethiopia, funding is being used for adaptation initiatives related to disaster risk management, agriculture, and ecosystem conservation. The USAID adaptation activities in Ethiopia aim to develop early-warning systems related to drought, prevent overexploitation of water resources, and build capacity to adapt food production systems to changing climate conditions.

Climate Change and Development Strategy 2012-2016. In January 2012, USAID released the *2012-2016 Climate Change and Development Strategy*, which describes USAID’s goal of enabling countries to transition to climate-resilient low emission sustainable economic development. The *USAID Climate Change and Development Strategy*, as part of the broader Presidential Global Climate Change Initiative, describes several strategic objectives (see page 7 of this Plan) and associated immediate results to accomplish this goal. The Agency is currently drafting Implementation guidance for this Strategy, which will be completed by FY14.

The *USAID Climate Change and Development Strategy* also provides a roadmap for implementation, informed by the following guiding principles:

- **Invest in policy reforms** and seek systemic change where possible by supporting capacity for analysis, planning and implementation.
- **Engage at multiple levels of government.**
- **Strengthen civil society and engage the full range of stakeholders**, including women, indigenous peoples and other vulnerable and marginalized populations;
- **Respond to partner country priorities, needs, and capabilities**, in accordance with the principle of country-led development;
- **Leverage private sector investments to the maximum extent possible;**
- **Partner and coordinate with other donors** to reduce burdens on partner countries, support country-led processes, and create an effective donor division of labor;
- **Make choices to minimize climate impacts while maximizing development benefits;**
- **Promote conflict-sensitive programming**, including by addressing problems of government ineffectiveness and illegitimacy, increasing social cohesion, and encouraging participation, accountability and transparency;
- **Utilize gender-sensitive approaches across climate programming and engage youth;** and
- **Value ecosystem services** and their role in mitigating the impacts of climate change.

The roadmap highlights the most critical steps needed for integrating climate change into the Agency’s mission, programs, and operations. The actions described in the roadmap are listed in Section **Error! Reference source not found.**

Resilience Policy and Guidance. USAID’s “*Building Resilience to Recurring Crisis: USAID Policy and Program Guidance*,” published in 2012, aims to inform efforts to reduce chronic vulnerability and promote more inclusive growth in areas of recurrent crisis. In regions where this policy and program guidance is applied, objectives are to 1) increase adaptive capacity; 2) improve the ability to address and reduce risk; and 3) improve the social and economic conditions of vulnerable populations. Over the long term, we envision that these results will collectively contribute to reduced humanitarian need, and metrics will be developed to capture these results. USAID has already increased efforts to address the impact of climate change and climate variability on development programs, in recognition of repeated crises in places like the Horn of Africa and the Sahel. With this new policy and guidance, USAID is focusing on leveraging short-term humanitarian assistance and longer term development assistance to build resilience so that these vulnerable communities in the Horn, Sahel, and elsewhere can build back better and endure stresses.

The process of Agency adaptation planning, implementation, and evaluation will continue to be led by the Agency GCC Coordinator who will work closely with technical experts and Agency leadership across functional and regional bureaus and Missions to implement USAID's Adaptation Plan. In accordance with the *USAID Climate Change and Development Strategy* roadmap, the Coordinator will lead a process to more formally identify roles and responsibilities as well as a governance structure within the Agency for implementation of the Plan. The process will be flexible and adaptable to ensure that changes can be made to implementation as needed.

The actions listed in the following two sections, Adaptation-Related Actions Supporting USAID's Programs and Adaptation-Related Actions Supporting USAID's Operations, explain the processes that will be used to: explore and identify climate vulnerabilities; identify and prioritize actions to better understand or address risks and opportunities; and monitor or evaluate the implementation of successful climate change adaptation actions.

B. USAID HEADQUARTERS' PAST, CURRENT AND PLANNED ADAPTATION-RELATED ACTIONS SUPPORTING USAID PROGRAMMING

USAID headquarters is committed to working on reducing the vulnerabilities of its programs to climate change. Overarching actions include release of the *USAID Climate Change and Development Strategy* and the policy and guidance on *Building Resilience to Recurring Crisis*, which are described above.

This section provides an illustrative list of actions undertaken or planned at USAID headquarters, organized by six overarching objectives that are consistent with the roadmap outlined in the *USAID Climate Change and Development Strategy* and include *Guidance and Training*, *Pilot Activities*, *Research and Information*, *Evaluation and Learning*, *Partnerships*, and *Inreach and Outreach*. These actions represent only a fraction of USAID's current and past adaptation-related activities.

GUIDANCE AND TRAINING

USAID understands that climate change must be taken into account throughout the programming cycle to ensure that programs and projects are resilient to the impacts of climate change. To facilitate successful integration of climate change considerations, USAID is developing guidance documents and trainings focused on areas where climate change should be integrated into program elements. These guidance documents and trainings are helping to educate and guide USAID staff in understanding climate change impacts, key vulnerabilities, and actions to address climate change risks and opportunities.

Implementation guidance for Climate Change and Development Strategy. The Strategy, released in January 2012, recognizes that consideration of climate change in strategic planning, program design, and project implementation across a range of development sectors is essential to the success of USAID's mission and purpose. A draft of the Implementation guidance is undergoing internal reviews and editing, and is targeted for completion in FY14. The Implementation guidance will explain the requirements associated with direct adaptation funding under the Global Climate Change Initiative, and help USAID staff understand how to design climate-resilient programs in line with the *USAID Climate Change and Development Strategy*.

Country Development Cooperation Strategy Supplemental Guidance. In September 2011, USAID issued final guidance for developing Country Development Cooperation Strategies (CDCSs). A CDCS is a

five-year strategy that focuses on USAID-implemented assistance—and related USG non-assistance tools—that is developed collaboratively with a range of stakeholders in a given partner country. These stakeholders include the USAID Mission, the host country government and citizens, civil society organizations, the private sector, multilateral organizations, other donors, the State Department, and other USG agencies. Subsequently, in January 2012, USAID issued the CDCS Supplemental Guidance for Integrating Global Climate Change. All Missions are required to fully consider climate change—both climate change mitigation and adaptation—during the country-level strategic planning process. The Supplemental Guidance provides guidance to USAID Operating Units on how to approach this integration and is immediately mandatory for all Missions launching the CDCS process.

More specifically, the Supplemental Guidance helps all operating units consider how climate change should be integrated by requiring them to address four questions in their CDCS related to climate change impacts on the specific country, citizens, government, and USAID strategies and operations. The document also provides Missions with 10 Guiding Principles for climate change analyses and strategic program planning. Lastly, the guidance document poses additional required questions for Missions receiving Global Climate Change Initiative funding, including funding for adaptation programs.

Adapting to Climate Variability and Change: A Guidance Manual for Development Planning. USAID published “*Adapting to Climate Variability and Change: A Guidance Manual for Development Planning*” in August 2007. The goal of the manual is to help project planners in Missions assess the vulnerability of projects to climate impacts and identify and implement climate change adaptation options (the V&A approach). The V&A approach can be adapted to different types of projects in various sectors and can apply to a range of climate concerns. The V&A steps can be incorporated at any stage of a project cycle. The guidance also incorporates real-life examples by describing adaptation-related pilot activities (mentioned below) and links to other sources of information. The GCC Office also conducted a number of pilot activities—in Honduras, Mali, South Africa, Thailand, Madagascar, the Marshall Islands, and Peru—to develop and test the V&A approach laid out in this manual. In 2009, USAID published the companion document “*Adapting to Coastal Climate Change: A Guidebook for Development Planners*”.

New Adaptation Mainstreaming Guidance. USAID is in the process of developing new guidance focused on mainstreaming climate concerns into development and sector planning of USAID Bureaus and Missions’ programs and projects. The updated Adaptation guidance manual “*Climate Resilient Development: A Guide to Understanding and Addressing Climate Change*”, is undergoing revisions based on an internal USAID review, with the goal of publishing it in July 2013. The updated guidance will have a broader focus and better account for financial, technical, organizational, and capacity constraints. It is expected to feature more practical tips on tailoring V&A steps to the specific needs of adaptation planning, provide guidance on integrated assessment of climate and non-climate stressors, and provide information on comparative analysis of development and adaptation measures.

Sectoral Adaptation Guidance. USAID is developing sector-specific adaptation guidance in the form of Climate Annexes that support the new mainstreaming guidance. In FY12, USAID finalized 9 infrastructure fact sheets and an overview brief; these raise awareness about the potential impacts of climate change on infrastructure (e.g., transport, buildings, sanitation systems, solid waste management, and information and communication technology) and the range of adaptation options available to address them. A Water Annex and a Coastal and Marine Annex will be published in mid-2013. An annex on “*Governing for Resilience: A Guide*

to *Climate-Adaptive Development Decisions*,” is also being drafted. These guidance Annexes are oriented to a broad audience, including USAID staff and decision makers and practitioners in developing countries.

Climate Change Training. To enhance USAID’s capacity to meet the climate change related objectives laid out in the Agency’s *Climate Change and Development Strategy*, USAID has developed for its staff an online introductory course to global climate change (GCC-101) as well as more in-depth classroom courses on integrating climate considerations into USAID’s work, mitigation (clean energy and REDD+), and adaptation. In fiscal year 2011, the full suite of classroom training courses were offered in Bangkok, Thailand and Washington, DC, with a total of 267 participants. During the same time period, 168 people completed the online GCC-101 course. In fiscal year 2012, 67 attendees participated in adaptation training courses offered in Jakarta, Indonesia, and Washington, DC. In fiscal year 2013 to date, adaptation trainings have also been held in Ghana, Jamaica, and El Salvador. The training courses ensure that relevant USAID staff and implementing partners have the opportunity to gain the knowledge and skills needed to understand how climate change could affect their work, how to respond to it, and how to effectively program direct climate change funding. Building on the successes of the last three years of training, future training efforts are planned for Peru and Washington, DC. USAID is also developing additional online courses, such as one that looks at the intersection of climate change and health.

FY13

- **Finalize Guidance.** Work within the Agency to develop guidance for resilient programming in climate-sensitive sectors (e.g., agriculture, health, water management, disaster risk reduction, natural resource management, and infrastructure). This may be in coordination with the more general mainstreaming guidance discussed above. Disseminate guidance broadly.

FY14

- **Conduct Climate Change Adaptation Training.** Train 60 additional USAID staff on climate change adaptation and/or integrating climate change considerations into programming in climate-sensitive sectors.

FY15-FY16

- **Review Environmental Impact Assessment.** Following USAID policy development guidance, review core agency environmental procedures under 22 CFR 216 and other federal agency procedures under the National Environmental Policy Act (NEPA) to make recommendations as to whether and how required environmental impact assessment procedures should consider climate change in USAID-funded programs and activities. If appropriate, develop associated guidance and/or training.
- **Ensure Reporting Requirement Performance.** Work with Streamlining committee to ensure that all reporting requirements related to the *USAID Climate Change and Development Strategy* can be met through planning and reporting systems utilized by the Agency. If appropriate, develop associated guidance and/or training.

PILOT ACTIVITIES

Pilots allow for leadership to emerge, new approaches to be tested, and best practices, lessons, and tools to be generated. Therefore, USAID seeks to capitalize on pilot activities focused on climate change adaptation

integration. The results of adaptation-focused pilot activities will help to inform the priorities of USAID's *Climate Change and Development Strategy* beyond 2016.

Integration Pilots. USAID is supporting a series of climate change integration pilot activities to deepen USAID's experience with integration of climate into other development sectors. Seven USAID missions received integration pilot awards in FY12, and an additional three missions receiving integration pilot awards in FY13. Pilot activities focus on integrating climate change adaptation into USAID development programs in areas like food security, water, health, and democracy, human rights, and governance. The pilots are in different stages of procurement and implementation. For example, USAID/Dominican Republic's integration pilot project was awarded in the first round, and publically launched in February 2013; the project is developing insurance and other complementary risk management tools for Dominican farmer groups to enhance economic opportunities and protect their assets and livelihoods from climate shocks. Additionally, USAID/Ethiopia's Peace Centers for Climate and Society Resiliency project is working to increase the pastoralist Borana communities' economic and social resilience to climate change, focusing on strengthening community governance structures and local peace centers and improving and sharing best practices for resolving natural-resource scarcity conflicts.

RESEARCH AND INFORMATION

While USAID understands it is imperative that Agency investments in climate change be evidence-based, data gaps may exist due to the relative newness of adaptation programming. Research, exploration and evaluation are required in many instances to more thoroughly understand the problems associated with climate change, and to identify effective ways of addressing them. USAID is working within the Agency and with other USG partners, other donors and civil society partners to understand the needs for applied research on climate change and development and further the state of knowledge. The following actions seek to fill to a number of identified information and/or data gaps.

Famine Early Warning Systems Network. The USAID-funded Famine Early Warning Systems Network (FEWS NET) provides early warning and vulnerability information on food security issues; monitors agriculture, climate, and market data; and helps decision-makers mitigate food insecurity. FEWS NET reduces the risk of food insecurity in part by refining and applying climate data. It is an example of effective scientific analysis of food security and climate change. FEWS Net has been operating since 1985 and its USG implementing partners include USGS, NASA, NOAA, and USDA.

SERVIR. SERVIR, the Regional Visualization and Monitoring System, builds capacity of regional institutions and decision-makers in developing countries to access and utilize remote sensing, earth observation, and in-situ monitoring data, as well as analysis and visualization tools to help inform decision-making on issues including agriculture, water, health, forest management, and disaster response. Regional SERVIR hub institutions include CATHALAC in Central America, the Center for Mapping Resources for Development (RCMRD) in East Africa, and the International Center for Integrated Mountain Development (ICIMOD) in the Himalaya region. These partners work with international and local scientists to collect and process information and apply it to decision support applications to reduce vulnerability, respond to disasters, understand greenhouse gas emissions from land uses and manage landscapes. Currently, 12 of USAID's priority adaptation countries are served by the SERVIR network. Efforts are underway to expand the SERVIR network to other regions to support climate-resilient development. SERVIR began operation in 2004 and is primarily supported by USAID and NASA.

Climate Services Partnership. The Climate Services Partnership seeks to improve understanding and application of climate services among decision makers and practitioners in developing countries, including USAID Missions and their partners. The program is compiling and disseminating current climate services knowledge, conducting case studies and assessments of climate services, exploring economic valuation of climate services, developing a climate information guidebook, and piloting nation-level climate services analysis. The Partnership is also building the capacity of national weather services to deliver climate information products to stakeholders in government ministries and the private sector.

FY14

- **Conduct Survey of Applied Climate Change and Development Research Needs.** USAID intends to develop a rapid survey of perceived needs for applied research within the Agency and among USG partners and key external stakeholders.
- **Develop Climate Change and Development Research Strategy.** USAID will use the results from the survey of applied research needs to refine this research strategy, which will identify a set of core questions focused on understanding and addressing the risks and opportunities of climate change and identify financial resources, either centrally managed or country-based, to address these questions. The strategy will include a plan for leveraging the resources of the U.S. federal science community.

FY15-16

- **Conduct Climate Change and Development Research.** Begin to support prioritized research efforts identified in the climate change and research strategy. Research efforts may include innovative approaches to adaptation, such as a resiliency index, measuring the costs and benefits of adaptation, or tools for managing risk.

EVALUATION AND LEARNING

USAID has a responsibility to use its climate change funds to achieve the greatest impact per dollar spent; therefore, the Agency will emphasize effective monitoring and evaluation to ensure accountability for the results achieved with USAID's climate change investments. Furthermore, USAID will capitalize on stakeholder input and the results of program and project monitoring and evaluation to continue learning about effective ways to understand and address climate change risks and opportunities. The Agency will also invest in the exchange of learning both within and outside of the Agency as seen through actions under the *Guidance and Training* and *Partnerships* objectives.

FY13-FY14

- **Monitoring Results of Climate Change Adaptation Reference Guide.** This reference guide is being developed to support efforts to monitor and report results of USAID GCC adaptation programs. The guide serves as a tool for USAID activity managers to promote targeted and consistent results monitoring. This guide represents a first step in a coordinated effort to document meaningful impacts, resulting from GCC adaptation investments. While this guide will provide ideas and options for indicators, not requirements, it is expected that some outcome-level indicators included in this guide may become required GCC Standard indicators in the future to satisfy reporting needs related to the GCC Initiative. The guide is expected to be completed by the end of FY13.

- Agency Evaluation Agenda for Climate Change Programming.** USAID is currently working on improving methods for monitoring and evaluating climate change adaptation to ensure that the results of adaptation programs and projects can be captured and communicated. USAID's approach to developing an evaluation agenda encompasses the following: 1) development of detailed global climate change pillar results frameworks, including one for adaptation, to express the development hypotheses that underpin Agency work on climate change; 2) selection and development of indicators to gauge progress at output and outcome levels; 3) an inventory of USAID field mission programs; and 4) a literature review to gather evidence of the causal logic of the frameworks. To date, 10 draft hypotheses (covering both adaptation and mitigation) and a short list of mission programs for long-term impact evaluations have been developed. By the end of FY13, USAID aims to select up to 3 missions and associated GCC programs for evaluation. In FY14, USAID will define evaluation questions, design evaluations, and collect or reconstruct baselines. Individual missions are also conducting performance evaluations that the Agency will draw on for lessons learned.
- Design Agency Monitoring and Evaluation Plan for Climate Change Programs.** USAID has drafted a monitoring and evaluation plan for climate change programs, one element of which will be focused on adaptation. This plan is consistent with USAID's new evaluation policy and will help the Agency assess the success, scalability, and replicability of direct climate change programming and integration activities. The establishment of adaptation targets and indicators is ongoing through the development of the plan. To the extent possible, the evaluation plan will incorporate impact evaluations of the largest investments.
- Compile Climate Change Adaptation Lessons Learned.** USAID aims to evaluate past climate change programs (including integration pilot activities as discussed above) and other relevant examples of integrated programming to glean lessons that will inform its next generation of programming. These lessons will be incorporated into revised guidance, and shared with Agency staff and the broader development community. To date, several initiatives have been implemented to facilitate exchange of learning. The GCC office conducts monthly extended team meetings within USAID for people from all bureaus who work on, or have an interest in, climate change, with the purpose of sharing plans, updates, and lessons learned. The GCC office also organizes a bi-monthly meeting in Washington DC for members of the development community working on climate change adaptation issues. USAID's Bureau for Food Security and Climate Smart Agriculture Working Group have also been engaging USAID missions in an effort to share best practices on climate smart agriculture, including through a Global Learning Evidence Exchange in 2013, in which three missions participated. Finally, several communities of practice have emerged from the Adaptation Partnership workshops (e.g., Climate Services Partnership, Central American Climate Resilient Agriculture, High Mountain Glacier Watershed Program). These communities of practice serve as lasting fora for sharing lessons and exchanging experiences.
- Host Climate Change Adaptation Learning and Experts Workshops.** USAID intends to conduct a series of workshops around critical topics, such as best practices for vulnerability assessments and options analysis, index measures for climate vulnerability, or tools for assessing the economic impacts of climate change and climate change programs. In FY13, USAID's Africa Bureau hosted an experts workshop on information and capacity for adaptation decision-making in the

agriculture sector, and an experts meeting to consider recent approaches and recommendations of best practices for climate change vulnerability assessments.

FY14-FY16

- **Evaluate Integration Pilots.** USAID aims to develop and apply evaluation plans that comply with the Agency’s new evaluation policy (discussed below), test the validity of the development hypothesis underpinning pilot design, and ensure that lessons learned are shared for adaptive management. Pilot implementation continues in FY13 and FY14, with additional funding set aside to put rigorous evaluation designs in place for GCC integration pilots. The second tranche of integration pilots focused on fewer, larger projects to increase the likelihood that impacts can be measured. Dependent on the receptivity of local stakeholders and availability of resources, USAID intends to do impact evaluations of the integration pilots in the Dominican Republic and Ethiopia, and rigorous performance evaluations of the pilots in Macedonia, Angola, and Kazakhstan.
- **Compile Lessons Learned and Best Practices from Pilots.** Use stakeholder input and the results of pilot monitoring and evaluation to identify key lessons learned. These lessons may include opportunities and obstacles that have influenced the effectiveness of the projects. As appropriate, translate the lessons learned into regional, country-specific, and sectoral best practices or case studies that will assist in the implementation of future climate change adaptation and integration efforts.
- **Develop Climate Change Adaptation Help Desk.** Design, develop, and implement an internal climate change adaptation focused help desk that answers questions related to climate change vulnerability, impacts, and adaptation. The resource will allow staff with diverse needs to retrieve accurate and reliable information prepared by climate change adaptation experts in one location.
- **Exchange Climate Change Adaptation Lessons Learned.** Exchange lessons learned with other major actors in the climate change space. This exchange may occur through various mechanisms including sharing at smaller communities of practice or working groups; attending and presenting at domestic and international conferences or workshops, such as the Interagency Forum on Climate Change Impacts and Adaptations hosted by NASA and USACE; or supporting platforms for exchange of experiences.

PARTNERSHIPS

USAID recognizes that its resources for climate change are limited relative to the scope of the overall need, to those of other donors, and to potential investments by the private sector. Partnerships are therefore critical to successful and widespread adaptation. USAID encourages proactive development of diverse partnerships with other agencies within the USG, civil society, international institutions, and private sector organizations that can assist with information gathering and implementing climate change adaptation and development activities. USAID will take advantage of strong existing interagency partnerships that tap into the research and technical expertise of many agencies, such as NOAA, DoE, and EPA. These partnerships can provide targeted technical assistance for actions under the *Guidance and Training* and *Pilot Activities* objectives and contribute in important ways to the Agency’s actions that fall within the *Research and Information* objective.

Adaptation Partnership. The global Adaptation Partnership was created by the governments of Costa Rica, Spain, and the United States at the Petersberg Ministerial Climate Dialogue in 2010, with the view that it

would fill a gap until negotiations about adaptation institutions under the UNFCCC were finalized. Since then, over 50 developing and developed countries have participated in the Partnership to identify common adaptation priorities and improve coordination of efforts to scale up action and financing for adaptation. The Partnership completed an extensive inventory of adaptation activities in developing countries, providing a useful ‘big picture’ of who is doing what on adaptation, and where there might be gaps and opportunities for further action. Through the Partnership, USAID and other countries also supported a series of 12 workshops for donors, developing country governments, NGOs, and others on key adaptation issues, such as food security and climate information services. The workshops convened practitioners to address adaptation challenges that are either regionally- or sector-based, and to share good approaches to adaptation. These workshops have proven to be useful to USAID in a number of ways. The workshops helped USAID understand the key climate vulnerabilities facing partner countries and where these countries struggle to address climate challenges; ultimately this helps to facilitate USAID’s research efforts and generate information that can be used to reduce the vulnerability of USAID programs and projects. The Partnership also promoted the exchange of lessons learned and best practices so USAID can share as well as build from experiences of partners across the world.

In addition to workshops, the Adaptation Partnership supported follow-on research and pilots, and connected practitioners with one another to share lessons and exchange experiences through communities of practice. With the Adaptation Committee under the UNFCCC now in place, the Adaptation Partnership has been formally wound down, though the communities of practice will continue as a lasting mechanism for sharing information and experiences about adaptation.

APS to promote development of Global Development Alliances (GDAs). USAID issued an Annual Program Statement (APS) to promote public-private alliances as a business model to bring new partners and resources into development assistance and to address action on climate change, including adaptation. The proposals that were received under this APS are currently under consideration by the Agency.

FY14

- **Develop Climate Change Adaptation Coordination Plan.** Develop a coordination plan both within USAID and across USG agencies, other international donors, civil society groups, and the private sector. The coordination plan may identify the need to establish or participate in working groups, communities of practice, or partnerships that may be topic- or location- specific, or broad reaching; in-person or virtual; or technical or conceptual. When developing the strategy USAID will consider the Agency’s research needs, programmatic investments, international commitments, and interests, among other elements.
- **Form Private Sector Alliance.** Actively pursue private sector alliances that offer opportunities to leverage public funds and to support innovation in areas such as insurance and information technologies toward adaptation investments.

FY15-FY16

- **Engage Youth Partnership.** Engage USAID’s climate and youth experts and youth organizations to bring awareness to the impacts of climate change on youth and the opportunities it poses for young entrepreneurs, advocates, students, and others.

INREACH AND OUTREACH

USAID understands that effective inreach and outreach are critical to successfully implementing resilient programs and projects. USAID will expand communication on the importance of integrating climate change adaptation into development goals. USAID will also continue to make new information and resources, such as on-line resources, publications, methodologies, and tools available throughout the Agency.

Many of the actions described in the previous five objectives contain elements of inreach and outreach. For example, USAID plans to host summits, seminars, and other information exchanges to disseminate best practices to other organizations working in the field. Additionally, USAID will continue to lead efforts to incorporate climate change modules into trainings for new Foreign Service Officers and other employees.

Individual USAID functional and regional bureaus have developed integrated programs, where a series of actions are focused on better understanding and addressing climate change risks and opportunities. USAID is also increasing efforts to develop fact sheets and website content to better communicate climate change adaptation programs and results to the public, Congress, and other audiences. While the programs listed below are described as more overarching in their approach to climate change adaptation, a number of the actions described above also fall under these programs.

Global Climate Change (GCC) Office: Climate Change Resilient Development. The GCC Office's Climate Change Resilient Development (CCRD) project is designed to enhance resilience of developing country peoples, assets, and livelihoods through improved design of USAID programs and increased capacity to respond to climate change impacts. This goal is supported by three objectives: 1) provide support to USAID Missions and bureaus to mainstream climate change into development programs and projects; 2) coordinate with other USG Agencies to support global mainstreaming of adaptation; and 3) identify and respond to emerging issues and provide knowledge management assistance for design, planning, and implementation of climate resilient development programming.

Africa and Latin America Regional Bureaus: African and Latin American Resilience to Climate Change. USAID/Africa Bureau's Office of Sustainable Development, with the LAC Bureau's Regional Sustainable Development office, is providing analysis, thought leadership, and capacity building to promote adaptation to climate change under the African and Latin American Resilience to Climate Change (ARCC) Project. The project will develop vulnerability assessment and options analysis methodologies to guide USAID adaptation programming; explore the drivers of conflict related to climate in West Africa and the Sahel; focus thought leadership activities in areas such as climate change/food security, improved use of science, and others; and provide support and technical assistance for field Missions in the Africa region, as well as the Latin American and Caribbean region.

Asia Regional Bureau: Asia Region Environmental Field Support (AREFS). This project is designed to provide support to USAID Missions in the Asia-Pacific region to enable them to plan, implement and evaluate climate change adaptation programs and projects. AREFS has been working on: 1) providing Asia Missions with identify short-term technical assistance (STTA) in climate adaptation; 2) monitoring and evaluating climate change statistics and implications for Asian countries; 3) monitoring resiliency and the need for adaptation in prioritized infrastructure, extractive industry, and industrial agriculture projects; and 4) providing outreach and communications, including the development of a website and training courses.

C. USAID MISSION-LEVEL PAST, CURRENT AND PLANNED ADAPTATION-RELATED ACTIVITIES SUPPORTING USAID PROGRAMMING

Many USAID country and regional Missions have direct adaptation funding and/or are integrating adaptation into some of their key programs to build resilience to climate change and variability and safeguard USAID investments. This section provides an illustrative overview of adaptation-related activities being undertaken by USAID Missions but does not capture the full spectrum of on-the-ground adaptation activities that are reducing climate-related vulnerabilities.

USAID/Southern Africa: Resilience in the Limpopo River Basin (RESILIM). USAID's RESILIM initiative recognizes that climate change will have profound impacts on the availability of water for the 14 million people living in the Limpopo River Basin, which covers parts of Botswana, Mozambique, South Africa, and Zimbabwe. This initiative will support the adoption of science-based adaptation strategies to reduce climate vulnerability and improve management of water resources across the basin. USAID will improve policies; build stakeholders' skills; and test innovative practices for improved water allocation, ecosystem conservation, and application of the best available climate science and management information. RESILIM will strengthen governance to address climate-related risks and improve science and analysis for decision-making.

USAID/Senegal: Collaborative Management for a Sustainable Fisheries Future (COMFISH). The URI-USAID COMFISH project is a five-year initiative which began in February 2011. COMFISH is enhancing the capacity of local artisanal fisheries councils to manage the effects of climate change on the fish catch along Senegal's coasts. COMFISH will work with local fisheries councils to ensure that the projected impacts of climate change, including changes in the upwelling patterns and increases in salinization, are understood at the community level and included in local management plans. These efforts will help make Senegal's fishing industry more sustainable, and significantly improve food security, livelihoods, and economic growth, as well as resilience to climate change.

USAID/Regional Development Mission-Asia (RDMA). USAID's Mekong Adaptation and Resilience to Climate Change program (Mekong ARCC) is a five-year program that began in 2011. It will increase the climate resilience of Cambodia, Laos, Thailand, and Vietnam in the water resource, agriculture, food security, and biodiversity sectors. Mekong ARCC will conduct a cutting edge scientific study on the impacts of climate change on agriculture and ecosystems to inform decision makers on the strategies to support millions of subsistence farmers in the Mekong basin in strengthening their resilience to negative impacts of climate change in the key sectors listed above. Consistent economic information from across the basin will be collected on the costs and benefits of ground-tested indigenous and innovative adaptation practices, including gender specific approaches, to allow the analyses necessary to scale-up and mainstream community/ecosystem-based adaptation into the development process.

USAID/Sri Lanka: Enhance Climate Resiliency and Water Security. USAID's Program to Enhance Climate Resiliency and Water Security is being carried out in collaboration with the Maldives Ministry of Housing and Environment, provincial utility service providers, and Island Councils and residents on two northern islands. Its aim is to assess long-term climate vulnerability and to develop cost-effective adaptation strategies. The program is supporting innovative solutions to the growing problem of water scarcity, which is made worse by climate change and sea level rise. The program will assist the Government's goal of

developing the standards and criteria for a “climate resilient island” model program that can be replicated throughout the country, and potentially in other small island developing states.

USAID/Barbados and Eastern Caribbean: Water Resource Management and Flood Resilience

Program. USAID's Water Resource Management and Flood Resilience Program aims to reduce vulnerability to flooding, which is projected to occur more frequently in coastal lowland Barbados as a result of climate change. Activities of this program may include improving storm water management, analyzing water quality and the impacts of storms on coastal areas and the marine environment, supporting the design and construction of storm water harvesting structures along major tributaries, strengthening the institutional, policy, and legislative framework related to storm water, and developing improved climate science systems and information databases to inform decision making in the water sector.

USAID/Philippines: Water Security for Resilient Economic Growth and Stability (Be Secure)

Project. USAID's Be Secure Project fosters comprehensive water security in the Philippines. The project will work with national and sub-national government agencies as well as local stakeholders including communities, NGOs and universities. Specific adaptation activities will: a) build capacity of stakeholders in collecting, analyzing, and communicating water and climate data at national, regional, and local levels; b) enhance local capacity to integrate disaster risk reduction and climate change adaptation into local plans and programs; and c) improve local understanding and support for long-term water security and mainstreaming integrated water resource management (IWRM) in water supply and sanitation services.

Pacific region: Coastal Community Adaptation Project (C-CAP). C-CAP aims to build the resiliency of vulnerable coastal communities in the Pacific region to withstand more intense and frequent weather events and ecosystem degradation in the short-term, and sea level rise in the long-term. The project has three components: rehabilitating or constructing new, small-scale community infrastructure; building capacity for community engagement for disaster prevention and preparedness; and integrating climate resilient policies and practices into long-term land use plans and building standards.

USAID/Bangladesh: Climate-Resilient Ecosystems and Livelihoods (CREL). USAID recently launched the Climate-Resilient Ecosystems and Livelihoods (CREL) program, which will provide technical advisory and assistance services to Government of Bangladesh (GOB) ministries and technical agencies and to community-based organizations co-managed by aid donors and recipients. CREL will promote alternative, climate-resilient livelihood activities; biodiversity conservation through co-management of natural resources; policies that institutionalize community-based natural resource management; and climate change strategy implementation, including the 2009 Bangladesh Climate Change Strategy and Action Plan. CREL's objective is to achieve responsible, equitable, climate-resilient growth and good environmental governance.

USAID/Indonesia: Marine and Climate Support program. This program works in partnership with the Indonesian Ministry of Marine Affairs and Fisheries (MMAF). It will improve the capacity of 100 local coastal communities to assess climate change vulnerabilities, strengthen governance, and implement solutions to reduce the risks associated with natural disasters and climate change. The program also aims to strengthen governance of coastal and marine areas by supporting MMAF operations and management.

D. ADAPTATION-RELATED ACTIONS SUPPORTING USAID'S OPERATIONS

As described in the section entitled USAID Operations Vulnerability Assessment, climate change could compromise numerous aspects of USAID operations, including assets, support systems, health and safety, and security. Impacts and/or disruptions to operations may ultimately affect the Agency's ability to implement programs effectively and, consequently, achieve its mission. This section summarizes a number of actions that USAID aims to implement, particularly through its Management Bureau, to help the Agency better understand and address operational climate change risks and opportunities. Furthermore, the actions mentioned in this section seek to build the capacity of USAID staff to identify and respond to climate risks and stress the need for integrated collaboration and coordination.

It is important to point out that collaboration with the Department of State (DoS) is critical for addressing operational vulnerability as a significant portion of USAID operations are co-located or co-implemented with DoS. As a result, a number of the actions identified below focus on building partnerships and enhancing communications with DoS. Without a coordinated effort it will be difficult for USAID to take action or respond to identified risks independently.

FY13-FY14

- **Explore Operational Climate Change Adaptation Partnership with Department of State.** Begin a dialogue with the DoS and explore establishing a productive partnership on operational climate change adaptation. A partnership with DoS may take various forms depending on the needs of both USAID and DoS; therefore, the Agency will consider their internal needs, effective methods for collaboration, and important topics of coordination as this working relationship is developed. For example, USAID may need to consider how to manage the decentralized nature of a partnership to support collaboration that fits the unique working relationships between DoS and USAID offices at the country level. Furthermore, since operational impacts may affect DoS and USAID differently, the Agency may need to consider how to best recognize and address distinct missions and purposes. Finally, the scale and type of collaboration may vary in different regions and operational concerns. In some locations the level of cooperation needed may be simply an exchange of information, resources, and/or tools; in other regions a comprehensive joint effort to reduce operational climate vulnerability may be warranted.
- **Support Climate Smart Missions.** Solicit interest from operating units in becoming climate smart missions and provide selected Missions with funding and technical support to integrate climate change adaptation into their operations. Actions for climate smart missions may include: screening operations for climate change vulnerability, identifying potential adaptation actions, and prioritizing actions for enhancing resilience. Furthermore, lessons gleaned from climate smart missions (e.g., ways to motivate staff to achieve goals) will be collected and used to inform efforts to bring the model to scale at the Agency level.

FY15 – FY16

- **Adaptively Manage Operational Climate Change Adaptation Partnership with Department of State.** Building off the DoS partnership dialogue, assess the Agency's partnership with DoS and determine the most effective path toward reducing operational vulnerability. Potential actions that

could be undertaken in collaboration with DoS include the following steps. These actions are iterative and ongoing activities that may be initiated and updated concurrently.

- *Develop Inventory of USAID/DoS Operations.* Inventory all operations, including buildings, facilities, equipment, vehicles, processes, and systems, that are jointly occupied by USAID and DoS. If appropriate, disaggregate operations by type, location, ownership (e.g., owned, leased, rented, co-located), design standards, or other important vulnerability-related characteristics (e.g., coastally located).
 - *Conduct Vulnerability Screen.* Screen operations (including assets, systems, and processes) for exposure, sensitivity, and/or adaptive capacity to better understand vulnerability. The screen will also help to identify which operations are most vulnerable to certain climate impacts.
 - *Identify Critical Operations and Associated Backup Systems.* For operations recognized as vulnerable to climate change, identify those that are critical (e.g., operations that required to (1) keep USAID programs and projects moving forward or (2) ensure staff welfare). Examples may include approval processes, funding mechanisms, and emergency procedures. For operations that are both vulnerable and critical, determine if a backup system exists. If not, consider developing a redundant process to reduce vulnerability of those operations.
 - *Implement Actions to Reduce Operational Vulnerability.* Consider methods or actions for building more resilient operations. Adaptation examples include: incorporating climate change considerations into design standards, building codes, and/or environmental protocols when building new infrastructure; developing backup systems for critical operations; or considering resilience of buildings/other infrastructure during rental agreements. Other measures may comprise retreating /relocating or protecting/hardening of infrastructure (e.g. upgrading systems, structural improvements, or environmental buffers) or managing of impacts (e.g., increase maintenance budget, update emergency management plans). In reviewing and selecting potential adaptation actions, managers will consider cost effectiveness, and seek actions that will support and optimize other development objectives (e.g. enhanced food security; reduced disease incidence) which increasing climate resilience.
- **Seek Opportunities for Operational Climate Change Adaptation Training & Resources.**
Explore opportunities for operational climate change adaptation training. This may involve capitalizing on existing training, collaborating with other agencies to develop training, or creating internal training for USAID mission and headquarters staff working on operational-related activities. For example, the Agency may adopt or modify trainings already developed by other agencies (e.g., GSA or CEQ) that could be delivered to USAID. Alternatively, USAID may work with other agencies (e.g., DoS or DoD) to develop or alter trainings that are applicable to diverse stakeholders in a global setting. In addition to trainings, USAID will also consider the use of guidance, frameworks, or checklists that will help the Agency to understand and respond to operational climate change risks and opportunities.

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APPENDIX I. USAID CLIMATE CHANGE ADAPTATION POLICY STATEMENT²³

Reducing the risks of climate change impacts on people, places, and livelihoods—and anticipating and building resilience to manage these potential impacts—depends on the deliberate and strategic integration of adaptation considerations into development plans and actions. For this reason, USAID will consider the role of climate variability and change in constraining development across its portfolio, and will work with partners to build climate resiliency into national, sub-national, and local plans and actions in climate-sensitive sectors. This integrated approach will allow USAID to advance its core mission and development objectives while ensuring the long-term sustainability of USAID programs and operations.

USAID will ensure its development portfolio and operations are sustainable in the face of an uncertain and changing climate by:

- Working with experts throughout the Agency in key climate-sensitive sectors such as agriculture, health, disaster preparedness, and water management to integrate climate change considerations into strategic planning, program design, and implementation.
- Evaluating past climate change programs and other relevant examples of integrated programming to glean lessons that will inform USAID's next generation of programming, and by developing an evaluation plan for climate change mitigation and adaptation programming in accordance with USAID's new evaluation policy.
- Designing and implementing a research agenda and a learning plan to ensure that the Agency answers the most critical questions about climate change and development, and learns from its programs to inform future programming and to share these lessons with the broader development community.
- Developing new curricula and training development professionals from a variety of disciplines to understand climate change, its potential impacts on development gains, and opportunities to spur low emissions, climate resilient development.
- Reviewing current environmental policies and guidelines and making recommendations as to whether required environmental assessments should be altered to explicitly address climate change.

USAID will invest its current appropriated resources for adaptation programming in three intermediate results:

- Improved access to science and analysis for decision-making;
- Effective governance systems; and
- Identification and dissemination of programs and actions that reduce the long term vulnerability to climate change of people, places and livelihoods.

²³ Note: this Policy Statement was published in 2011 and is not a living document.

APPENDIX II. USAID PLANNED ADAPTATION ACTIONS SUMMARY TABLES

Table A.1. USAID Mission Actions

Action	Agency Lead	Scale	Expected Start	Expected Completion	Type of Action	Coordination / Collaboration	Considerations / Linkages	Status / Accomplishments
<i>2012</i>								
Launch Agency Climate Change and Development Strategy	GCC Coordinator	International	January 2012	2012	Understand & Address	Agency-wide	Linkage with almost all programmatic actions	Completed
Complete Implementation Plan for Climate Change and Development Strategy	GCC Coordinator	International	January 2012	January 2016	Understand & Address	Agency-wide	Linkage with almost all programmatic actions	In progress
<i>2013</i>								
Distribute USAID's Adaptation Plan	GCC Coordinator	International	2013	Ongoing on annual basis	Understand & Address	Agency-wide	Make available to the Agency & distribute to identified Agency leads	
Review, Evaluate, and Update USAID's Adaptation Plan	GCC Coordinator	International	2013	Ongoing on annual basis	Understand & Address	Agency-wide & potential collaboration with other USG agencies	Linkage with almost all programmatic actions	

Table A.2. USAID Guidance and Training Programmatic Actions

Action	Agency Lead	Scale	Expected Start	Expected Completion	Type of Action	Coordination / Collaboration	Considerations / Linkages	Status / Accomplishments
<i>2012</i>								
Publish Updated Adaptation Guidance Manual and Sectoral Briefs	GCC Office	International	February 2012	2013	Understand & Address	Share within agency and with country stakeholders & other development professionals	Linkage with trainings & Mission programs	In draft form
Develop Country Development Cooperation Strategy Supplemental Guidance	PPL	International	2012	2012	Understand	Agency-wide	Linkage with Mission programs	Completed
Conduct Climate Change Adaptation Training	GCC Office	International	2012	Ongoing	Understand & Address	Agency-wide		Ongoing
<i>2013</i>								
Create Sectoral Project Design Guidance and	GCC Office	International	2013	Ongoing	Understand & Address	Agency-wide	Linkage with research and learning	

Training								
Conduct Climate Change Adaptation Training	GCC Office	International	2013	Ongoing	Understand & Address	Agency-wide	Links direct to Sectoral Training	Ongoing
2014-2016								
Review Environmental Impact Assessment	TBD	U.S.	TBD	TBD	Understand & Address	Agency-wide		
Ensure Reporting Requirement Performance	TBD	International	TBD	TBD	Address	Agency-wide		

Table A.3. USAID Pilot Activities Programmatic Actions

Action	Agency Lead	Scale	Expected Start	Expected Completion	Type of Action	Coordination / Collaboration	Considerations / Linkages	Status / Accomplishments
2012								
Commence Integration Pilots	GCC Coordinator and Missions	International	March 2012	2014	Understand & Address	Agency-wide		Pilots have been awarded
2013-2014								
Implement and Evaluate Integration Pilots	Missions	International	March 2012	2014	Understand & Address	Agency-wide	Links directly to integration pilots & M&E strategy	Some pilots have begun implementation
Support Additional Integration Pilots	GCC Coordinator	International	2013	Completed	Understand & Address	Agency-wide	Links directly to integration pilots	Completed
2014-2016								
Compile Lessons Learned & Best Practices from Pilots	TBD	International	TBD	TBD	Understand & Address	Agency-wide with potential external collaboration	Links directly to integration pilots	

Table A.4. USAID Research and Information Programmatic Actions

Action	Agency Lead	Scale	Expected Start	Expected Completion	Type of Action	Coordination / Collaboration	Considerations / Linkages	Status / Accomplishments
2013-2014								
Conduct Survey of Applied Climate Change and Development Research Needs	GCC Office	International	January 2012	2013	Understand & Address	Agency-wide	Linkage to learning & pilots	In progress
Develop Climate Change and Development Research Strategy	GCC Office	International	March 2012	Ongoing	Understand & Address	Agency-wide	Links directly to survey and other linkages to partnerships, mission programs, & pilots	In progress (Elements of research are beginning to

								emerge)
2014-2016								
Conduct Climate Change and Development Research	TBD	International	2013	Ongoing	Understand & Address	Agency-wide with potential USG collaboration	Links directly to the research strategy	

Table A.5. USAID Evaluation and Learning Programmatic Actions

Action	Agency Lead	Scale	Expected Start	Expected Completion	Type of Action	Coordination / Collaboration	Considerations / Linkages	Status / Accomplishments
2012								
Drafted Agency Monitoring and Evaluation Plan for Climate Change Programs	GCC Coordinator	International	March 2012	2014	Understand	Agency-wide	Linkage to pilot activities	In progress
Host Climate Change Adaptation Learning Workshops	GCC Coordinator	International	2013	Ongoing	Understand & Address	Agency-wide with potential external collaboration	Linkage to training and research	In progress (workshop on vulnerability assessment completed)
2013-2014								
Compile Climate Change Adaptation Lessons Learned	GCC Coordinator	International	2013	Ongoing	Understand & Address	Agency-wide	Linkage to mission programs, training, pilots, & partnership	
Develop Climate Change Adaptation Help Desk	GCC Office	International	2013	Ongoing	Understand & Address	Agency-wide	Linkage to guidance, training, pilots, lessons learned, & research	
2014-2016								
Exchange Climate Change Adaptation Lessons Learned	TBD	International	TBD	TBD	Understand & Address	Agency-wide & external (e.g., Interagency Forum on Climate Change Impacts and Adaptations hosted by NASA & USACE)	Linkage to partnerships	

Table A.6. USAID Partnership Programmatic Actions

Action	Agency Lead	Scale	Expected Start	Expected Completion	Type of Action	Coordination / Collaboration	Considerations / Linkages	Status / Accomplishments
2013-2014								
Develop Climate Change Adaptation Coordination	GCC Coordinator	International	2013	Ongoing	Understand & Address	Other USG agencies, international donors, civil	Linkage to research, learning, inreach and	

Plan						society groups, and the private sector	outreach	
Form Private Sector Alliances	GCC Office and other Operating Units	International	2013	Ongoing	Address	Private sector	Direct linkage to coordination plan & other partnership activities	
2014-2016								
Engage Youth Partnership	TBD	International	TBD	TBD	Address	Youth organizations	Direct linkage to coordination plan	

Table A.7. USAID Operational Actions

Action	Agency Lead	Scale	Expected Start	Expected Completion	Type of Action	Coordination / Collaboration	Considerations / Linkages	Status / Accomplishments
2014								
Explore Operational Climate Change Adaptation Partnership with DoS	TBD	International	2014	Ongoing	Understand & Address	Agency-wide, potential coordination with DoS and/or GSA	Dependent on partnership with DoS	
Support Climate Smart Missions	GCC Coordinator	International	2014	Ongoing	Address	Agency-wide, potential coordination with DoS	Potential linkage to integration pilots	
2015-2016								
Adaptively Manage Operational Climate Change Adaptation Partnership with DoS	TBD	International	Annually	Ongoing on annual basis	Understand & Address	Agency-wide, potential coordination with DoS and/or GSA	Direct linkage with adaptation partnership with DoS	
Seek Opportunities for Operational Climate Change Adaptation Training & Resources	TBD	International	TBD	TBD	Address	Potential coordination within USAID and externally with GSA, CEQ, DoS, DoD	Potential linkage to adaptation training	

APPENDIX III. COUNTRY AND REGIONAL VULNERABILITY PROFILES

The profiles can be accessed in the previous year's Plan, at <http://www.usaid.gov/sustainability/climate-change-adaptation-plan>.

The profiles are illustrative, and are intended to highlight potential climate vulnerabilities in countries and regions that receive significant USAID funding, particularly for programs that are more sensitive to the impacts of climate change. These countries and regions were selected to ensure diversity and broad representation across a wide range of geographies, climate stressors, development programs, and adaptation priorities. They are not intended as a comprehensive analysis of all climate vulnerabilities for USAID programming, or as an indication of which countries are considered to be most vulnerable. USAID has undertaken more detailed vulnerability assessments in a number of countries to inform direct adaptation programming.