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HAITI

CLIMATE VULNERABILITY PROFILE

US Foreign Assistance: [1] (thousands USD)	Requested FY 2012	Requested FY 2013
Estimated total:	357,161	339,963
Adaptation:	3,000	0
Feed the Future:	35,700	30,000
Water:	1,100	1,166
Priority Adaptation Country in 2011:	NO	
Key Climate Stressors:	Heat, Drought, Flooding, Sea level rise	

INTRODUCTION

Haiti is a small impoverished Caribbean country occupying the western half of the Island of Hispaniola. Haiti has a population of over 8 million people and is statistically the poorest country in the Western Hemisphere, ranking 158 out of 187 on the UN Human Development Index. Haiti's topography consists of rugged mountains mixed with river valleys and coastal flat lands. Most Haitians reside on the coastline, which spans 1,771 km. Haiti faces significant development challenges, including food and economic security, health and education, political violence, and environmental degradation. It is estimated that population stress has caused 98 percent of Haiti's forest to be cleared for fuel. These challenges are compounded by frequent and devastating natural disasters, including hurricanes, flooding, drought, and earthquakes. The 7.0 magnitude earthquake on January 12, 2010 is considered one of the largest economic and humanitarian disasters to occur in the Western Hemisphere. The earthquake killed hundreds of thousands of people, caused significant damage to infrastructure, and left over 1.6 million people without access to shelter or basic services.

PROJECTED WEATHER AND CLIMATE CHANGES

Haiti experiences tropical humid conditions year-round with a long wet season, predominantly in the northern and southern regions of the island. Between March and November, Haiti experiences two periods of peak rainfall. Haiti is also located in the middle of a hurricane belt, with the most severe storms routinely occurring from June to October. These storms typically cause widespread flooding and deadly landslides.

TEMPERATURE: Temperature observations show that the frequency of cold days and cold nights has decreased steadily since 1960, while the frequency of hot days and hot nights per year has increased by 63 and 48 days, respectively, between 1960 and 2003. This trend it expected to continue and temperature is projected to increase by 0.5-2.3°C by 2060.

PRECIPITATION: Average annual rainfall in Haiti has decreased by 5 mm per month per decade since 1960. Climate models project that rainfall will continue to decrease during June-August, while projections for the remainder of the year are less definitive.

SEA LEVEL RISE: Sea level rise projections for Haiti's coast are also uncertain. According to the Intergovernmental Panel on Climate Change's Fourth Assessment Report, the Caribbean is projected to experience a rise in sea level between 0.13 and 0.56 m by 2090 relative to the 1980-1999 baseline.

EXTREME EVENTS: Observations show that the intensity of hurricanes has increased considerably since 1980, but future projections of hurricane frequency and intensity in the Atlantic are still debated. The U.S. Climate Change Science Program states that increases in hurricane rainfall, wind speeds, and storm surge are likely to occur in conjunction with a rise in sea temperature.

KEY CLIMATE IMPACTS AND VULNERABILITIES

The most significant climate-related hazards in Haiti include flooding, drought, intense rainfall, landslides, severe soil erosion, salt water intrusion, and hurricanes. These hazards will likely impact various facets of Haiti's economy and society. The most significant impacts are likely to be experienced in agriculture and food security, coastal communities, and water resources. For example, a reduction in annual rainfall coupled with more intense storm events will likely decrease agricultural productivity in Haiti for corn, rice, and potatoes and exacerbate food security issues. Furthermore, the supply and quality of water resources will be threatened by reductions in precipitation, inadequate water-related infrastructure, and saltwater intrusion. Coastal communities will become more vulnerable as more intense and frequent storms are experienced, natural resources are further degraded, and landslides and floods become more severe. In sum, climate changes are very likely to exacerbate Haiti's existing vulnerabilities because the country has little economic and institutional capacity to respond.

KEY USAID PROGRAM VULNERABILITIES

INFRASTRUCTURE AND ENERGY: USAID is building basic services for Haiti's citizens in response to the destruction of public infrastructure from the 2010 earthquake. USAID's projects focus on providing economic support and increasing employment through investments in housing, ports, and energy. Infrastructure in Haiti is already vulnerable to natural disasters and will become increasingly more vulnerable as climate change impacts worsen. In particular, urban areas are threatened by intensified hurricanes, landslides, and flooding caused by increased precipitation, widespread deforestation, and inadequate drainage infrastructure. USAID infrastructure investments and programs in Haiti are therefore threatened by climate change impacts.

FOOD SECURITY: Agriculture generates more than 25 percent of Haiti's Gross Domestic Product (GDP) and employs more than 60 percent of the country's population. USAID's food security project activities include efforts to improve the storage of harvested crops and the roads needed for transport. In the past, droughts and floods in Haiti have devastated

[1] US foreign assistance includes both USAID and Department of State program funding, but in most cases the bulk of this funding is implemented through USAID. In order to have comparable figures in these categories, all country profiles use figures from the Congressional Budget Justification (CBJ) (see http://transition.usaid.gov/performance/cbj/185016.pdf and http://transition.usaid.gov/performance/cbj/158269.pdf). Between the time of the budget request and the 653(a) report to Congress, these figures can change significantly.

crops, reduced agricultural yields, and weakened food security. As climate change causes more unpredictable and irregular rainfall and more frequent and intense storms, current agricultural practices will be challenged. These practices include the type of crops chosen and the timing of planting. Furthermore, the infrastructure used throughout the agricultural supply chain, including water storage, transport, and industrial machinery, may be damaged or destroyed by extreme events such as floods, hurricanes, and landslides. Impacts in Haiti's agriculture sector may cause food security conflicts, negatively affecting USAID/Haiti's governance program.

ECONOMIC SECURITY: USAID is investing in economic security in Haiti by strengthening lending to small and medium enterprises (SMEs), with a focus on those involved in the U.S. Government's target sectors of construction, garments and apparel, and agriculture. Any number of these SMEs could be vulnerable to climate change as aspects of the supply chain are destabilized by climate-related hazards. For example, the underlying infrastructure and systems developed to support services could be damaged or disrupted by high speed winds, flooding, or landslides.

HEALTH AND OTHER BASIC SERVICES: USAID supports a number of health programs in Haiti, one of which is focused on Water, Sanitation, and Hygiene (WASH). Inadequate waste management systems are a critical challenge to public health. Climate impacts, such as hurricanes, flooding, or sea level rise, will exacerbate this challenge and may affect the success of USAID's WASH program in Haiti through increased risk of water-borne diseases or saltwater intrusion.

ACTIONS UNDERWAY[2]

USAID adaptation actions in Haiti focus on building resilience in the agriculture sector. USAID is working on sustainable agricultural development in the Port-au-Prince and St. Marc development corridors to increase resilience to extreme weather events. Furthermore, USAID is supporting the integration of climate change considerations into infrastructure, natural resource management, and governance related to agricultural activities. Local researchers, planners, and decision-makers in Haiti will also receive adaptation assistance from the Energy and Climate Partnership of the Americas, which receives funding from the State Department.

Haiti has a number of adaptation projects currently underway that are sponsored by other donors. These include a United Nations Development Programme project on coastal zone management funded by the Least Developed Countries Fund and a Food and Agriculture Organization project on agriculture and disaster risk reduction funded by the Global Environment Fund. Haiti is also a part of several regional adaptation projects.

CHALLENGES TO ADAPTATION

Haiti's National Adaptation Programme of Action identified a number of challenges that need to be overcome to effectively implement adaptation actions in Haiti. These include: the possibility of a return of political turbulence and instability, resulting in lack of trust in government programs by Haitians and donors; potential conflicts between partner organizations and local authorities; lack of coordination between various environmental projects; difficulty accessing priority areas; and the potential occurrence of new disasters during implementation of adaptation projects.

RESOURCES

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[2] Actions underway include those from direct adaptation funds and indirectly attributed funds. More information on U.S. climate finance can be found at http://www.state.gov/e/oes/climate/faststart/index.htm.