## INITIAL ENVIRONMENTAL EXAMINATION

### PROJECT/ACTIVITY DATA

<table>
<thead>
<tr>
<th>Project/Activity Name:</th>
<th>USAID/Eswatini HIV/AIDS Prevention, Care and Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographic Location(s) (Country/Region):</td>
<td>Eswatini</td>
</tr>
<tr>
<td>Amendment (Yes/No), if Yes indicate # (1, 2...):</td>
<td>No</td>
</tr>
<tr>
<td>Implementation Start/End Date (FY or M/D/Y):</td>
<td>October 1, 2019 to September 30, 2024 (FY20 to FY24)</td>
</tr>
<tr>
<td>If Amended, specify New End Date:</td>
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</tr>
<tr>
<td>Solicitation/Contract/Award Number(s):</td>
<td>Multiple</td>
</tr>
<tr>
<td>Implementing Partner(s):</td>
<td>Multiple</td>
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### ORGANIZATIONAL/ADMINISTRATIVE DATA

<table>
<thead>
<tr>
<th>Implementing Operating Unit(s): (e.g. Mission or Bureau or Office)</th>
<th>USAID/Eswatini PEPFAR Office</th>
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<tbody>
<tr>
<td>Other Affected Operating Unit(s):</td>
<td>USAID/Southern Africa Regional HIV/AIDS Program (RHAP)</td>
</tr>
<tr>
<td>Lead BEO Bureau:</td>
<td>AFR</td>
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<tr>
<td>Funding Account(s) (if available):</td>
<td>Multiple</td>
</tr>
<tr>
<td>Original Funding Amount:</td>
<td>$275 000 000</td>
</tr>
<tr>
<td>If Amended, specify funding amount:</td>
<td>N/A</td>
</tr>
<tr>
<td>If Amended, specify new funding total:</td>
<td>N/A</td>
</tr>
<tr>
<td>Prepared by:</td>
<td>Cherry Gumapas/Thembeka Sonkwele, USAID Southern Africa/RHAP</td>
</tr>
<tr>
<td>Date Prepared:</td>
<td>9 September 2019</td>
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### ENVIRONMENTAL COMPLIANCE REVIEW DATA

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<th>Analysis Type:</th>
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<td>X Negative</td>
</tr>
<tr>
<td></td>
<td>☐ Positive</td>
</tr>
<tr>
<td></td>
<td>☐ Deferred (per 22 CFR 216.3(a)(7)(iv))</td>
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<td>IEE Expiration Date (if applicable):</td>
<td>September 30, 2024</td>
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<tr>
<td>Additional Analyses/Reporting Required:</td>
<td>Environmental Mitigation and Monitoring Plans and</td>
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PROJECT/ACTIVITY SUMMARY

The purpose of this document, in accordance with Title 22, Code of Federal Regulations, Part 216 (22CFR216), is to provide a preliminary review of the reasonably foreseeable effects on the environment of the USAID interventions described herein and recommend determinations and, as appropriate, conditions. The USAID/Eswatini PEPFAR office implements a comprehensive portfolio of activities for HIV/AIDS and TB prevention, care and treatment. It includes activities for orphans and vulnerable children, adolescent girls and young women, and high-risk key populations. The portfolio also implements health systems strengthening activities in the areas of human resources for health, supply chain management and health information systems.

This IEE covers the activities under the HIV/AIDS work stream for the period FY20 – FY24, the period during which the Government of the Kingdom of Eswatini (GOKE) aims to improve upon existing programs and expand comprehensive clinical and non-clinical differentiated HIV/AIDS care and treatment services to attain and maintain HIV epidemic control in Eswatini.

A majority of PEPFAR programming will be transitioned to local in-country organizations, namely GKoE, Eswatini parastatals, education entities, local civil society and the private sector. This will ensure compliance with PEPFAR’s guidance to work with indigenous organizations to build sustainable local capacity for epidemic control.

The current activities are implemented through multiple implementing partners and mechanisms over the five-year period.

ENVIRONMENTAL DETERMINATIONS

A Negative Determination with Conditions is recommended for the entire program of activities contingent upon implementation of the conditions and mitigations listed in Section 5.

Refer to sections 4 and 5 of the IEE for specific details. Upon approval of this document, the determinations become affirmed, per Agency regulations (22 CFR 216).

CLIMATE RISK MANAGEMENT

Within the four intervention categories described in the above table, the climate risk assessment is categorized as low.

IMPLEMENTATION

In accordance with 22 CFR 216 and Agency policy, the conditions and requirements of this document become mandatory upon approval. This includes the relevant limitations, conditions and requirements in this document as stated in Sections 3, 4, and 5 of the IEE and any BEO Specified Conditions of Approval.
USAID APPROVAL OF INITIAL ENVIRONMENTAL EXAMINATION

PROJECT/ACTIVITY NAME: USAID/Eswatini HIV/AIDS Prevention, Care and Treatment


Approval:

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Groarke</td>
<td>Mission Director, USAID/Southern Africa</td>
<td></td>
</tr>
</tbody>
</table>

Cleared Via Email

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wendy Benzerga</td>
<td>USAID/Eswatini PEPFAR Director</td>
<td>10/25/19</td>
</tr>
</tbody>
</table>

Cleared Via Email

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Judith Muhomba</td>
<td>Mission Environmental Officer</td>
<td>9/11/19</td>
</tr>
</tbody>
</table>

Cleared Via Email

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jeanette Normand</td>
<td>Regional Environmental Advisor</td>
<td>9/12/19</td>
</tr>
</tbody>
</table>

Cleared Via Email

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colin Quinn</td>
<td>AFR Bureau Climate Integration Lead</td>
<td>10/25/19</td>
</tr>
</tbody>
</table>

Concurrence:

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brian Hirsch</td>
<td>Bureau Environmental Officer</td>
<td>10/25/19</td>
</tr>
</tbody>
</table>

DISTRIBUTION:

- Eswatini Office
- RHAP
- RPPDO
- RLO
- AFR BEO
- GH BEO
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I.0 PROJECT/ACTIVITY DESCRIPTION

I.1 PURPOSE AND SCOPE OF THE IEE

The purpose of this document, in accordance with Title 22, Code of Federal Regulations, Part 216 (22 CFR 216), is to provide a preliminary review of the reasonably foreseeable effects on the environment of the USAID intervention described herein and recommend determinations and, as appropriate, conditions, for these activities. Upon approval, these determinations become affirmed, and specified conditions become mandatory obligations of implementation. This IEE also documents the results of the Climate Risk Management process in accordance with USAID policy (specifically, ADS 201mal).

This IEE is a critical element of USAID’s mandatory environmental review and compliance process meant to achieve environmentally sound design and implementation. Potential environmental impacts should be addressed through formal environmental mitigation and monitoring plans (EMMPs) and/or Environmental Assessments (EAs), if needed.

The activities under this work stream are aligned with and being implemented in support of various mission initiatives as articulated in the following strategy and planning documents:

- USAID/Eswatini HIV/AIDS Project Authorization Action Memorandum (PAAM), expiring March 6, 2021
- USG PEPFAR annual Country Operational Plans (COP) FY20-FY24

The RHAP and USAID/Eswatini Office has been amended to update the currently approved PAAM annual COP allocations as specified in the approved PAAM.

I.2 PROJECT/ACTIVITY OVERVIEW

Eswatini has the highest adult HIV prevalence in the world, with 27% of adults aged 15 and older living with HIV. In 2020, this amounts to 210,725 people. The overarching goal of the PEPFAR/Eswatini (PEPFAR/E) investments is to support the Government of the Kingdom of Eswatini (GKoE) to achieve and maintain epidemic control by achieving the “95-95-95” goals defined by UNAIDS, which stat that by 2030, 95 percent of all people living with HIV will know their status, 95 percent of all people with diagnosed HIV infection will receive sustained antiretroviral therapy (ART), and 95 percent of all people receiving ART will have viral suppression.

I.3 PROJECT/ACTIVITY DESCRIPTION

The USAID/Eswatini portfolio of activities aims to provide and build national capacity for comprehensive HIV/AIDS and TB prevention, care and treatment service provision on actively finding unidentified, untreated, or unsuppressed individuals while improving access to high quality services. The needs and approaches for finding cases vary by age, gender, and individual or family context. Strategically targeted testing will include fully scaled index testing to identify half of all new positives, scaled-up targeted self-testing, and elimination of non-targeted facility testing through full implementation of risk screening tools. Improvements in case finding increase prevention opportunities, including reaching HIV negative men with counseling on VMMC. Priority interventions include case identification for men aged 20 – 29 and youth aged 15-25, linkage to care for women aged 20-29 and men aged 25-39 who know their status but are not on treatment, and viral suppression for adolescents and young men and women. We will particularly focus on the hardest-to-reach KP subpopulations such as older MSM, younger and home-based FSW, and peri-urban marginalized mobile populations.

Striving to reach 90% of all PLHIV on ART (the second 95%) in all ages, sexes and locations, all four regions are considered scale-up for case identification and linkage to treatment. Key strategies to increase linkage are same day initiation, expert client support, peer navigation, and improved access to ART services. As we seek to strengthen...
our focus on retention among all subpopulations, we will be pursuing targeted and population-focused strategies such as:

- differentiated service delivery approaches for reliable and convenient ART refills for subpopulations;
- multi-month scripting and dispensing;
- key communication interventions (such as undetectable viral load means the virus is untransmittable (U=U) segmented by population; and
- effective use of outreach workers, expert clients and step-up adherence counselors.

In addition to increasing retention, a full transition to dolutegravir-based regimens, including the fixed dose combination of tenofovir/lamivudine/dolutegravir (TLD), will support the achievement of higher community viral suppression, implementation of which is made more urgent by high levels of ART resistance. This transition and implementation of revised pediatric treatment guidelines will improve the lagging viral suppression experienced by younger PLHIV. Tackling two of the most significant causes of mortality amongst PLHIV in Eswatini, COP19 will see full implementation of TB preventive therapy and cervical cancer screening and treatment.

Priority and key populations will have improved access to high impact, integrated prevention services and programs through community- and facility-based settings. We will engage PP and KP to incorporate their perspectives, needs and feedback into the design and implementation of programs. With a substantial youth bulge, tailored HIV prevention programs are critical. Targeted sub-population specific approaches, especially for males 15-30 years old, will be employed to reduce barriers to testing, treatment, condoms, VMMC and PrEP, and to increase retention. The DREAMS package will focus on adolescent girls and young women (AGYW) ages 15-29 years of age. Prevention is fully integrated into the OVC interventions. We will reinforce local government structures and traditional and faith leaders’ efforts to reduce HIV and sexual and gender-based violence among 9-14-year olds and to reduce stigma and discrimination. We have re-booted VMMC programming to assure robust support for the GKoE’s operational plan with a multi-pronged approach, including integrated VMMC services within facilities and men’s corners, campaigns and community-based services specifically aimed at those over the age of 15 years. The VMMC program will employ targeted age segmented demand creation strategies, adapting what has worked in other countries, such as engaging local and traditional leadership, door-to-door mobilization, age-segmented services, human-centered design principles, use of incentives, and integration with other health platforms (e.g., STI clinics, ANC, etc.).

While acknowledging the successes of the national HIV program, PEPFAR is adapting investments to meet the needs as the epidemic changes. Recency testing will be implemented fully across the country, which in combination with increased investments in the national electronic medical record system will create case-based surveillance systems capable of defining geographic hot spots to enable highly focused case identification. Our support to the government’s laboratory optimization action plan will overturn regional discrepancies in access to viral load testing.

PEPFAR/Eswatini will continue to monitor implementing partners’ performance on a monthly basis to immediately address performance issues. Weekly updates will be required of implementing partners support HIV testing given the programming shift in this area. Program implementation will be monitored via quarterly performance reviews and regular SIMS visits. Partners will be required to report their monthly outlays against their approved COP19 levels, achievements and targets.

Sustainability is of increasing importance as Eswatini edges closer to epidemic control. PEPFAR/E will continue to work with GKoE to address resource mobilization, HRH and lab optimization, commodity security, and robust data utilization systems. COP19 provides additional resources to accelerate the roll-out of the Client Management Information System (CMIS) and address data synchronization and data quality and improve data use. COP19 shifts also include increased funding to indigenous organizations. Additionally, the GKoE’s continued commitment to address the epidemic by fully funding adult ARVs and increasing domestic HIV funding are significant sustainability milestones.
Civil society (CS) and population specific input into PEPFAR remains critical in order to appropriately tailor responsive interventions and messages to achieve results. A new initiative to work with communities of faith, traditional leaders and faith-based organizations (FBOs) will leverage the unique opportunities offered by these groups’ vast networks to enhance case finding and ART coverage, especially among men, and to prevent HIV and sexual violence, especially among 9-14-year olds. Continued collaboration with Global Fund and UNAIDS, through the coordination of the GKoE will ensure that the full range of PEPFAR’s investments are maximized.

For purposes of the environmental review and compliance, this IEE organizes the HIV/AIDS activities into four (4) intervention categories:

**Intervention Category 1:** Non-bio-medical interventions to prevent HIV/AIDS

**Intervention Category 2:** Bio-medical and/or clinical efforts to test for and/or prevent HIV/AIDS

**Intervention Category 3:** Bio-medical and/or clinical care and treatment for those infected with HIV/AIDS and TB

**Intervention Category 4:** Support for national and regional health system strengthening

The following table provides a summary of these activities within these intervention categories.

**TABLE 1: DEFINED OR ILLUSTRATIVE PROJECTS/ACTIVITIES AND SUB-ACTIVITIES CATEGORIZED BY INTERVENTION**

<table>
<thead>
<tr>
<th>Activity 1 — Preventing new HIV infections and reducing HIV morbidity and mortality through an improved and sustained HIV and TB continuum of care</th>
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</thead>
<tbody>
<tr>
<td><strong>Sub Activity 1.1</strong></td>
</tr>
<tr>
<td>1st 95: identifying 95% of PLHIV</td>
</tr>
<tr>
<td><strong>Sub Activity 1.2:</strong></td>
</tr>
<tr>
<td>2nd 95: initiating 95% of PLHIV who know their status on antiretroviral therapy</td>
</tr>
<tr>
<td><strong>Sub Activity 1.3:</strong></td>
</tr>
<tr>
<td>3rd 95: retaining 95% PLHIV on treatment so they are virally suppressed</td>
</tr>
</tbody>
</table>

**Intervention Category 1:** Non-bio-medical interventions to prevent HIV/AIDS including HRH, Supply chain and HMIS

**Activities:**
- Support, strengthen and collaborate with community-based HIV adherence clubs, Community-Based Organizations (CBOs) and Civil Society Organizations (CSOs) to mobilize awareness of and demand for HIV treatment services in Hhohho and Shiselweni Regions of Eswatini.
- Support community-based outreach teams to provide information and education and improve bidirectional information and referral systems between community and health care facilities.
- Develop and improve the utilization of community-based health information systems to track community/facility referral.
- Support the integration of other health related information relevant to HIV prevention into community-based information and education activities.
- Support Eswatini Client Management and Information System (CMIS), human resources for health and supply chain.

**Intervention Category 2 - Bio-medical and/or clinical efforts to test for and/or prevent HIV/AIDS and TB**

**Activities:**
- Condom distribution for HIV prevention.
- Provision of VMMC services for HIV prevention.
- Provision of PMTCT services.
- Health worker-administered testing for HIV and TB.
- Self-administered testing for HIV.
- Increase availability of and improve HIV and TB diagnostic procedures.
- Capacity building and practical skills training for community and clinical health care workers for improved delivery of HIV/AIDS and TB testing and prevention services.
- Capacity building and practical training in counseling HIV/AIDS and TB related to HIV/AIDS and TB testing and prevention.

**Intervention Category 3** - Bio-medical and/or clinical care and treatment for those infected with HIV/AIDS and TB

**Activities:**
- Capacity building and practical skills training for facilities-based and community-based health care workers for improved delivery of HIV/AIDS and TB.
- Provision of Antiretroviral Therapy (ART) medications and other related drugs for treatment of HIV/AIDS and TB.
- Improved delivery of and expanded access to integrated TB/HIV services and improved management of TB/HIV co-infection.
- Differentiated treatment for specific patient cadres (infants, pregnant women, men, adolescent girls and young women)
- Integrate nutrition assessments and counseling into HIV care and treatment to detect and prevent malnutrition and support strengthening drug treatment efficacy;
- Implement continuous quality improvement approaches to promote adherence and optimize treatment regimens to minimize risk for virologic failure;
- Implement routine Early Warning Indicators, and strengthen pharmacovigilance;
- Strengthen the clinic-lab interface to improve pre-analytical, analytical and post analytical phases of specimen collection and viral load documentation.
- Train medical staff on second- and third-line drug regimens and advanced HIV/TB clinical care;
- Incorporate new and/or inexpensive technologies that provide optimal ART regimen management for patients on third line regimens;
- Improve surveillance of and clinical care for HIV and TB drug resistance;
- Implement routine Early Warning Indicators, and strengthen pharmacovigilance; and
- Strengthen the clinic-lab interface to improve pre-analytical, analytical and post analytical phases of specimen collection and viral load documentation.

**Intervention Category 4:** Support for improved health system infrastructure, planning, management, and/or policy development

**Activities:**
- Strengthen health care supervision systems for HIV/AIDS and TB testing and prevention.
- Improved human resource management and staffing within health care facilities.
- Support health information systems to improve down referral and tracking of HIV cases.
- Minor renovations and alterations to existing health care facilities as needed and provision of temporary facilities as needed (e.g. park homes).

**ACTIVITY 2: Strengthening Regional Health Management Teams in support of HIV and TB**

**Intervention Category 4:** Support for improved health system infrastructure, planning, management, and/or policy development

**Activities:**
- Assist Hhohho and Shiselweni regions to develop Regional Implementation Plans using data analytics.
- Strengthen regional-level budgeting and budget execution.
• Strengthen regional-level workforce planning and development.
• Improve leadership, governance and management.
• Improve information management systems, data quality, and use of data in decision making, planning and management at site, regional and national level.

Will this project/activity involve construction\(^1\) as defined by ADS 201 and 303?

Yes, √

It is expected that construction as defined by ADS 201 AND 303 will take place and it will encompass minor renovations (painting, refurbishment, alterations) that could be classified as small-scale construction or temporary structures under some of the activities.

Table 2 provides a list of implementing mechanisms and partners covered by this IEE. Activities predating the development of subject IEE are covered in the RHAP IEE (https://ecd.usaid.gov/document.php?doc_id=44831). Each implementing mechanism has a specific geographic focus, which is summarized in section 2.2.

Table 2: USAID/Eswatini Implementing Mechanisms & Partner Information

<table>
<thead>
<tr>
<th>IP or Status of Procurement</th>
<th>Activity Name</th>
<th>Award Number</th>
<th>Start date</th>
<th>End date</th>
<th>Total Estimated Amount (TEA)</th>
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<tbody>
<tr>
<td>Elizabeth Glaser Pediatric AIDS Foundation (EGPAF) - Sole Source procurement action in progress</td>
<td>Support for comprehensive HIV clinical services in Hhohho and Shiselweni regions, and national level support to the Prevention of Mother-to-Child Transmission of HIV, Sexual Reproductive Health and pediatric programs.</td>
<td>TBD</td>
<td>October 1, 2019</td>
<td>March 30, 2020</td>
<td>$4,120,411.50</td>
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<td>FHI 360</td>
<td>Capacity Development and Support (Supply Chain TA)</td>
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<td>TBD</td>
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<td>TBD (Local Partner transition awards )</td>
<td>OVC, Adolescent Girls, and Young Women</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>10,000,000</td>
</tr>
<tr>
<td>TBD award USAID -in process award in FY20</td>
<td>ASPIRE- Attain &amp; Sustain 95-95-95, Prevent new Infections and Reach the Hard-to-Reach for Epidemic</td>
<td>TBD</td>
<td>March 2020</td>
<td>February 2025</td>
<td>$59,000,000</td>
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\(^1\) Construction, as defined by ADS 201 and 303, includes: construction, alteration, or repair (including dredging and excavation) of buildings, structures, or other real property and includes, without limitation, improvements, renovation, alteration and refurbishment. The term includes, without limitation, roads, power plants, buildings, bridges, water treatment facilities, and vertical structures. In the box below, describe any construction planned for this project/activity. Refer to [ADS 201](https://www.usaid.gov/system/files/pdf/201.pdf) for required Construction Risk Management procedures.
2.0 BASELINE ENVIRONMENTAL INFORMATION
ESWATINI SOCIO-ECONOMIC, PHYSICAL AND HIV/AIDS PROFILE

Though Eswatini benefits from decades of political stability, relatively low crime, fertile agricultural land, limited internal conflict, and minimal population pressures, it suffers from its high HIV burden, unemployment, food insecurity, economic and gender inequalities and the current economic crisis. The Kingdom of Eswatini is one of Africa’s geographically smallest countries, with just 17,300 square kilometers of land, landlocked between neighboring South Africa and Mozambique. With its divergent geology, climate and subsequent landforms, the physiographic regions within the country’s boundaries are very distinct.

In terms of global significance two areas of Eswatini are particularly important; the eastern region which forms part of the Maputaland Centre of Plant Diversity (one of the World’s floral ‘hotpots’ recognized for its species richness and levels of endemism) and the western region which falls within the Drakensberg Escarpment Endemic Bird Area.

Four biomes are recognized in Eswatini namely the Montane grassland, Savanna-woodland mosaic, forests and aquatic biomes. The grassland and Savanna biomes comprise 94% of the country, while the forest and aquatic biomes are highly restricted in terms of distribution. Currently only 4% of the country’s total land area is protected, well below the internationally recommended 10%. The savanna ecosystem is currently best conserved (5%), while the remaining ecosystems have only 2% of their areas formally protected. Approximately a quarter of each of the terrestrial ecosystems has been converted to some other form of land-use. These four ecosystems provide a wide range of biological resources which are currently being utilized by a large proportion of Swazi’s on Swazi Nation Land. The main causes of loss of biodiversity in Swaziland have been poor legal and institutional provisions for biological resources conservation and sustainable use and the failure to enforce legislation.

In terms of population, as per the 2017 National Population and Housing Census, there were 1,093,028 people in the country. Thirty-six percent of the people were <15 years old. Overall, 56% were <25 years old, indicating a substantial youth bulge. The population experienced an annual growth rate of 0.7% (Hhohho 1.3%; Manzini 1.1%; Shiselweni -0.2%, and Lubombo 0.2%), between 2010 and 2017, with 76% of the population living in rural areas.
Population

Figure 2.1.1 shows the population count per inkhundla (sub-regional administrative unit). By region, Manzini has the highest population (355,945), followed by Hhohho (320,651), Lubombo (212,531), and Shiselweni (204,111).

Figure 2.1.1. Population by inkhundla, Swaziland National Population and Housing Census, 2017
Figure 2.1.2 shows two tinkhundla (sub-regional administrative units) in Lubombo with high male to female ratio: Mhlume inkhundla (143 males/100 females) and Nkilongo inkhundla (130 males/100 females), and the ratio is consistently higher along the western border to South Africa in Hhohho region. These areas are locations of male-dominated industries such as sugarcane and wood pulp plantations that could have programmatic implications. The figure needs to be triangulated with the population count (Figure 2.1.1), population density (Figure 2.1.3) and with contextual data to determine the appropriate locations and approaches to find and link men to treatment or prevention. Additional programmatic considerations arise from Eswatini having substantial movement through both formal and informal borders, including major trucking routes east to west, and to the south with well-established hot-spots.

Figure 2.1.2. Sex ratio of all ages by inkhundla, Eswatini National Population and Housing Census, 2017
Figure 2.1.3 shows that population density is highest in the two tinkhundla in Manzini region: Kwaluseni (2,104 persons/km²) and Manzini South (2,355 persons/km²). Overall, population density ranks as follows: national (63 persons/km²); Hhohho (89 persons/km²); Manzini (87 persons/km²); Shiselweni (54 persons/km²); and Lubombo (36 persons/km²). The higher density areas on the map are known as the Manzini-Mbabane corridor, connecting the economic and national capitals, Manzini in Manzini region and Mbabane in Hhohho region.

Small country size, ease of movement and unemployment rates all contribute to the high mobility of the population, both within and across borders. Economic migration to South Africa contributes to the country’s negative net migration rate, and population movement increases the challenges in the delivery of ongoing health care services and in measuring progress in the epidemic. The PEPFAR/E SNUs are the four regions: Manzini, Hhohho, Lubombo and Shiselweni. Lubombo and Shiselweni are predominantly rural regions, whereas Manzini and Hhohho have higher population densities and are more urban.
Manzini

The highest number of PLHIV is in the Manzini region, which has an industrial corridor where many people (especially young women and men) from other regions come to seek employment. These areas are also known hot-spots for sex workers and MSM. Other areas in Manzini Region have lumber and mining activities that attract men for employment, and subsequently the women who follow them. Services with extended hours and specific activities to engage men cater to those employed in factories or male-dominated jobs in this region. Aggressive promotion for male testing and outreach for testing and linkages is prioritized in this region.

Hhohho

Hhohho is the second most populated region and while there are slightly less PLHIV than Manzini, there is a need for additional testing for men especially 25 to 40 years. The northern and western areas of Hhohho are dominated by logging, citrus farming and small-scale industries that attract men. The main border crossing at Oshoek is a large truck stop with transient men and women. Finding the undiagnosed men, linking them to treatment and retaining them in care will be reinforced through intensive community and male engagement, extended hours, leveraging the DREAMS/OVC platforms, and active case finding and outreach.

Lubombo

As a primarily rural region, Lubombo has lower population density, higher levels of poverty and food insecurity, a high burden of OVC and female-headed households and reduced access to services and transportation. As a reflection of need, note that only fifty-two percent of the population in this region has access to safe water, compared to the urban regions who have closer to 80%. This level of poverty impacts people’s ability to seek health services at facilities and thus there is a greater reliance on mobile services and community engagement and outreach.

Shiselweni

Shiselweni is the poorest region in Swaziland and it is a primarily rural area similar to Lubombo. Like Lubombo, Shiselweni has a high burden of food and water insecurity. Much of the population in Shiselweni have very difficult access (deep rural and poor) to transportation and services. There are concentrations of high risk populations including recent growth of textile factories that attract women seeking work, and the main truck route to the Durban Port and its border crossing, Lavumisa, which is a hot-spot and has a dynamic and transient population. Mobile services and outreach to the poorest populations, along with focused programming (with extended hours) in new industrial and hotspot zones will be prioritized as well as leveraging DREAMS and other outreach efforts to link these priority populations (PPs) to testing, treatment, and social services. MSF provides support to one of the three clusters in Shiselweni, and MSF has been providing all of the lab support in the region. Beginning in COP 18 they are shifting out of lab support. PEPFAR will continue supporting VL testing in the region through VL reagents buffer stock, mentorship and QMS activities.

2.1 LOCATIONS AFFECTED AND ENVIRONMENTAL CONTEXT (ENVIRONMENT, PHYSICAL, CLIMATE, SOCIAL, THREATENED AND ENDANGERED SPECIES)

USAID/Eswatini HIV/AIDS and TB care and treatment activities are implemented in homogenous environmental conditions in two regions, Hhohho and Shiselweni regions. National level support is provided for Health Systems Strengthening(supply chain management, Human Resources for Health, and Health Information Management) in all four regions. Over the life of each Activity, USAID/Eswatini anticipates further refinements and adjustments to the targeted regions to ensure support is reaching those most in need and being harmonized with other USAID/Eswatini and PEPFAR priorities and investments by the GKoE and other development partners. The country’s environmental baseline is summarized in Section 2.1 above.
2.2 APPLICABLE AND APPROPRIATE PARTNER COUNTRY AND OTHER INTERNATIONAL STANDARDS (E.G. WHO), ENVIRONMENTAL AND SOCIAL LAWS, POLICIES, AND REGULATIONS

Eswatini has an extensive framework of laws and policies governing the use and management of natural resources and the environment. These include the following:

- The Swaziland National Trust Commission (Amendment) Bill of 2009
- The Biosafety Bill of 2009
- The Biodiversity Management and Conservation Bill of 2007
- The Access and Benefit Sharing Bill of 2006
- The Environment Management Act of 2002
- The Swaziland Tourism Authority Act of 2001
- The Environment Audit, Assessment and Review Regulations of 2000
- The Swaziland Environmental Authority Act of 1992
- The National Trust Commission Act of 1972 (amended in 1973)
- The National Trust Commission Regulations of 1972
- The Forest Preservation Act of 1910
- The Forest Bill (2010)
- The Flora Protection Act of 2001

These are all guided by international instruments related to the same.

2.3 COUNTRY/MINISTRY/MUNICIPALITY ENVIRONMENTAL CAPACITY ANALYSIS (AS APPROPRIATE)

The government has a national emergency management system in place and a National Emergency preparedness response Plan (NERMAP) that covers Emergency flooding situations, other emerging infectious and water-borne disease outbreaks and natural disasters.

WHO, UNICEF and WFP have taken the lead in disaster preparedness work. The 2016 Drought resulted in WHO support for the Management of Acute Malnutrition in all affected areas. Community based nutrition and disease surveillance was strengthened through empowering community health volunteers to be able to identify malnourished and sick children and adults and refer them for treatment. Tools for diagnosing malnutrition which included scales for weight measurement and height boards were procured as well as Ready to Use supplementary feeding for the treatment of children with severe malnutrition in health facilities. A Mass Drug Administration for school aged children for schistosomiasis and soil transmitted helminthiasis was conducted.

A National Disease Surveillance and Response system was activated and included updating the immediate Disease Notification System to incorporate disease threats due to drought. This system enables the GKOE to detect early warning signs for disease outbreaks and facilitates a quick response.
3.0 ANALYSIS OF POTENTIAL ENVIRONMENTAL RISK

This section describes the results of an analysis of the Activity for potential adverse environmental, social, and climate impacts organized by the four intervention categories detailed above.

**Intervention Category 1: Non bio-medical interventions to prevent HIV/AIDS**

The non-bio-medical interventions aimed to prevent HIV/AIDS and TB are primarily centered on training, technical assistance and education-based interventions aimed to increase community awareness and knowledge of HIV and TB; improve communication between patients, community health workers and facility-based health care providers; and strengthen the capacity of community-based organizations and social networks (i.e., HIV adherence clubs). These interventions are generally anticipated to have no direct or indirect adverse environmental impacts, and are not associated with any health risk, rather are expected to have a positive effect on community and country-level development indicators.

**Intervention Categories 2 and 3: Bio-medical and/or clinical efforts to test for and/or prevent HIV/AIDS and TB and Bio-medical and/or clinical care and treatment for those infected with HIV/AIDS and TB**

Both Intervention Category 2 and 3 relate specifically to bio-medical interventions implemented within the community or health facility aimed to improve prevention and/or care and treatment of HIV/AIDS and TB.

This section is a general discussion and analysis of waste-related impacts of the types of health care activities that characterize the USAID/Eswatini's HIV/AIDS and TB Care and Treatment portfolio. It supports the subsequent analysis; no recommended determinations are attached specifically to this section.

**General Medical Waste**

Although health care activities provide many important benefits to communities, they can also unintentionally do harm via poor management of the wastes they generate. These wastes generally fall into three categories in terms of public health risk and recommended methods of disposal:

- **General healthcare waste**, similar or identical to domestic waste, including materials such as packaging or unwanted paper. This waste is generally harmless and needs no special handling; 75–90 percent of waste generated by healthcare facilities falls into this category, and paper waste can be incinerated or taken to the landfill without any additional treatment.

- **Hazardous healthcare wastes**, including infectious waste (except sharps and waste from patients with highly infectious diseases), small quantities of chemicals and pharmaceuticals, and nonrecyclable pressurized containers. All blood and body fluids are potentially infectious.

- **Highly hazardous healthcare wastes**, which should be given special attention, includes sharps (especially hypodermic needles), highly infectious non-sharp waste such as laboratory supplies, highly infectious physiological fluids, pathological and anatomical waste, stools from cholera patients, and sputum and blood of patients with highly infectious diseases such as TB and HIV.

**Pharmaceutical Wastes and Medical Supplies (including condoms)**

Pharmaceutical drugs including vaccines have specific storage time and temperature requirements and may expire or lose efficacy before they are used, particularly in remote areas where demand is low and/or infrequent. Pharmaceutical waste may also accumulate due to inadequacies in stock management and distribution and/or lack of a routine system of disposal.

The effects of pharmaceutical waste in the environment are different from conventional pollutants. Drugs are designed to interact within the body at low concentrations to elicit specific biological effects in humans, and which may also cause biological responses in other organisms. There are many drug classes of concern, including antibiotics, antimicrobials, antidepressants, and estrogenic steroids. Their main pathway into the environment is through household use and excretion, and through the disposal of unused or expired pharmaceuticals.
Effects on aquatic life are a major concern in disposal of pharmaceuticals. A wide range of pharmaceuticals has been discovered in fresh waters globally, and even in small quantities some of these compounds have the potential to cause harm to aquatic life.

Additional health risks related to disposal include burning pharmaceuticals and plastic medical supplies (including new or used condoms) at low temperatures or in open containers which results in the release of toxic pollutants into the air. Inefficient and insecure sorting and disposal may allow drugs beyond their expiry date to be diverted for resale to the general public.

**Potentially Infectious Wastes**

Improper training, handling, storage and disposal of the waste generated in health care facilities or activities can spread disease through several mechanisms. Transmission of disease through infectious waste is the greatest and most immediate threat from healthcare waste. If waste is not treated in a way that destroys the pathogenic organisms, dangerous quantities of microscopic disease-causing agents—viruses, bacteria, parasites or fungi—will be present in the waste.

These agents can enter the body through punctures and other breaks in the skin, mucous membranes in the mouth, by being inhaled into the lungs, being swallowed, or being transmitted by a vector organism. Those who come in direct contact with the waste are at greatest risk. Examples include healthcare workers, cleaning staff, patients, visitors, waste collectors, disposal site staff, waste pickers, substance abusers and those who knowingly or unknowingly use “recycled” contaminated syringes and needles. Although sharps pose an inherent physical hazard of cuts and punctures, the much greater threat comes from sharps that are also infectious waste. Healthcare workers, waste handlers, waste-pickers, substance abusers and others who handle sharps have become infected with HIV and/or hepatitis B and C viruses through pricks or reuse of syringes/needles.

Contamination of water supply from untreated healthcare waste can also have devastating effects. If infectious stools or bodily fluids are not treated before being disposed of, they can create and extend epidemics. The absence of proper sterilization procedures is believed to have increased the severity and size of cholera epidemics in Africa during the last decade.

**Intervention Category 4: Support for improved health system infrastructure, planning, management, and/or policy development**

Interventions and activities aimed to improve planning, management and/or policy development are primarily focused on training, mentoring, operational evaluations and studies, information sharing, workshops and meetings, and capacity development as it relates to development and implementation of management tools and systems and policies, standards and guidelines. These interventions are generally anticipated to have no direct or indirect adverse environmental impacts and are not associated with any health risk.

Interventions and activities aimed to improve health system infrastructure may include renovation of health care facilities or placement of temporary structures (i.e. park homes). Although small scale in nature, construction can pose human safety issues if improper materials are used or if the constructed small-scale infrastructure does not meet safety standards. Improper management of the building site and process may also pose safety issues to construction workers and surrounding communities.

Small scale construction can lead to over abstraction and depletion of natural resources used in the construction process such as sand, clay, stones or timber. If the sites where raw materials are drawn are not properly rehabilitated, they also have the potential to pose safety problems for people and animals and can become breeding sites for disease vectors. Small scale construction and physical infrastructure improvement can cause disturbance of the natural state of flora and fauna of an area where construction is taking place more so in protected lands/areas.
4.0 ENVIRONMENTAL DETERMINATIONS

4.1 RECOMMENDED ENVIRONMENTAL DETERMINATIONS

Upon approval of this document, the determinations become affirmed, per Agency regulations (22CFR216).

A Negative Determination with Conditions is recommended for the entire program of activities contingent upon implementation of the conditions and mitigations listed in Section 5.

IMPLEMENTATION

In accordance with 22CFR216 and Agency policy, the conditions and requirements of this document become mandatory upon approval. This includes the relevant limitations, conditions and requirements in this document as stated in Sections 4, 5, and 6 of the Environmental Analysis, and any BEO Specified Conditions of Approval.

4.2 CLIMATE RISK MANAGEMENT

This section summarizes the methodology and findings of the CRM Screening, in accordance with ADS 201mal. The project design team, in consultation with the REO, considered the potential effect of climate risks/stressors on the sustainability of the project (changing precipitation patterns, rising temperatures, floods, droughts, fires, landslides, etc.) in addition to the impact of project activities on the climate (increased greenhouse gas emissions, land use changes, etc.). See Annex 1 for the complete CRM table. The purpose of this climate risk management (CRM) screening is to identify climate-related risks to USAID programming in the health sector in Eswatini, and to help ensure USAID activities become more resilient to both current and future climate variability and change. This screening is part of implementing the Mandatory Reference for ADS Chapter 201: Climate Risks Management for USAID Projects and Activities.

This CRM screening was completed through a desktop review. This included reviewing:

- Eswatini HIV/AIDS PAAM;
- Review of implementing partner agreement program descriptions (multiple);
- USAID Climate Change Risk Profile – Southern Africa (2016); and
- USAID Climate Risk Management Toolkit-The CRM screening summary (Table 4 below) was completed by utilizing the above resources. The matrix outlines specific climate risks to project design and implementation, and opportunities to address those risks.
5.0 CONDITIONS AND MITIGATION MEASURES

5.1 CONDITIONS

The environmental determinations in this IEE are contingent upon full implementation of the following general implementation and monitoring requirements, as well as ADS 204 and other relevant requirements.

5.1.1 During Pre-Award:

5.1.1.1 Pre-Award Briefings: As feasible, the design team and/or the cognizant environmental officer(s) (e.g., MEO, REA, BEO) will provide a pre-award briefing for potential offerors on environmental compliance expectations/responsibilities at bidders’ conferences.

5.1.1.2 Solicitations: The design team, in coordination with the A/CO, will ensure solicitations include environmental compliance requirements and evaluation criteria. A/CO will ensure technical and cost proposal requirements include approach, staffing, and budget sufficient for complying with the terms of this IEE.

5.1.1.3 Awards: The A/COR, in coordination with the A/CO, will ensure all awards and sub-awards, include environmental compliance requirements.

5.1.2 During Post-Award:

5.1.2.1 Post-Award Briefings: The A/COR and/or the cognizant environmental officer(s) (e.g., MEO, REA, BEO) will provide post-award briefings for the IP on environmental compliance responsibilities.

5.1.2.3 Work plans and Budgeting: The A/COR will ensure the IP integrates environmental compliance requirements in work plans and budgets to comply with requirements, including EMMP implementation and monitoring.

5.1.2.4 Staffing: The A/COR, in coordination with the IP, will ensure all awards have staffing capacity to implement environmental compliance requirements.

5.1.2.5 Records Management: The A/COR will maintain environmental compliance documents in the official project/activity file and upload records to the designated USAID environmental compliance database system.

5.1.2.6 Host Country Environmental Compliance: The A/COR will ensure the IP complies with applicable and appropriate host country environmental requirements unless otherwise directed in writing by USAID. However, in the case of a conflict between the host country and USAID requirements, the more stringent shall govern.

5.1.2.7 Work Plan Review: The A/COR will ensure the IP verifies, at least annually or when activities are added or modified, that activities remain with the scope of the IEE. Activities outside of the scope of the IEE cannot be implemented until the IEE is amended.

5.1.2.8 IEE Amendment: If new activities are introduced or other changes to the scope of this IEE occur, an IEE Amendment will be required.

5.1.2.14 USAID Monitoring Oversight: The A/COR or designee, with the support of the cognizant environmental officer(s) (e.g., MEO, REA, BEO), will ensure monitoring of compliance with established requirements (e.g., by desktop reviews, site visits, etc.).
5.1.2.16 Environmental Compliance Mitigation and Monitoring Plan: The A/COR will ensure the IP develops, obtains approval for, and implements Environmental Mitigation and Monitoring Plans (EMMPs) that are responsive to the stipulated environmental compliance requirements.

5.1.2.17 Environmental Compliance Reporting: The A/COR will ensure the IP includes environmental compliance in regular project/activity reports, using indicators as appropriate; develops and submits the Environmental Mitigation and Monitoring Reports (EMMRs); and completes and submits a Record of Compliance (RoC) describing their implementation of EMMP requirements in conjunction with the final EMMR or at the close of sub activities (as applicable). And where required by Bureaus or Missions, ensure the IP prepares a closeout plan consistent with contract documentation for A/COR review and approval that outlines responsibilities for end-of-project operation, the transition of other operational responsibilities, and final EMMR with lessons learned.

5.1.2.18 Corrective Action: When noncompliance or unforeseen impacts are identified, IPs notify the A/COR, place a hold on activities, take corrective action, and report on the effectiveness of corrective actions. The A/COR initiates the corrective action process and ensures the IP completes and documents their activities. Where required by Bureaus or Missions, ensure Record of Compliance is completed.

5.2 AGENCY CONDITIONS

5.2.1 Sub-award Screening: The A/COR will ensure the IP uses an adequate environmental screening tool to screen any sub-award applications and to aid in the development of EMMPs.

5.2.2 Programmatic IEEs (PIEE): PIEEs stipulate requirements for additional environmental examination of new or country specific projects/activities. The A/COR of any project/activity being implemented under a PIEE will ensure appropriate reviews are conducted, typically through a Supplemental IEE, and approved by the cognizant BEO.

5.2.3 Supplemental IEEs (SIEEs): An SIEE will be prepared for any new project/activity being planned which fall under a PIEE. The SIEE will provide more thorough analysis of the planned activities, additional geographic context and baseline conditions as well as specific mitigation and monitoring requirements.

5.2.4 Other Supplemental Analyses: The A/COR will ensure supplemental environmental analyses that are called for in the IEE are completed and documented.

5.2.5 Resolution of Deferrals: If a deferral of the environmental threshold determination was issued, the A/COR will ensure that the appropriate 22CFR216 environmental analysis and documentation is completed and approved by the BEO before the subject activities are implemented.

5.2.6 Positive Determination: If a Positive Determination threshold determination was made, the A/COR will ensure a Scoping Statement, and if required an Environmental Assessment (EA), is completed and approved by the BEO before the subject activities are implemented.

5.2.7 Compliance with human subject research requirements: The AM, A/COR shall assure that the IP and sub-awardees, -grantees, and -contractors demonstrate completion of all requirements for ethics review and adequate medical monitoring of human subjects who participate in research trials carried out through this IEE and ensure appropriate records are maintained. All documentation demonstrating completion of required review and approval of human subject trials must be in place prior to initiating any trials and cover the period of performance of the trial as described in the research protocol.
5.3 MITIGATION MEASURES

The mitigation measures presented in this section constitute the minimum required based on available information at the time of this IEE and the environmental analysis in Section 4. These measures shall provide general direction for completing the project/activity Environmental Mitigation and Monitoring Plan (EMMP) and/or the EA and PERSUAP, if required. The USAID/Eswatini team and partners are required to undertake periodic field visits to assess the performance of mitigation and monitoring measures and to identify appropriate areas of improvement.

ACTIVITY 1: USAID/ESWATINI HIV/AIDS TREATMENT, CARE AND PREVENTION ACTIVITIES

TABLE 5A. SUMMARY OF MITIGATION MEASURES

<table>
<thead>
<tr>
<th>Project/Activity</th>
<th>Mitigation Measure(s)</th>
</tr>
</thead>
</table>
| USAID / ESWATINI HIV/AIDS TREATMENT, CARE AND PREVENTION ACTIVITIES | 1) Where USAID support increases the delivery of healthcare services, such as through the provision of supplies, equipment, and/or staffing, USAID will take responsibility for ensuring the proper management of medical waste from that facility; including, but not limited to, proper handling, labeling, treatment, storage, transport and final disposal.  
2) When USAID supports healthcare service delivery in partnership with other actors, including the host country, the GRA, NGOs, CSOs, etc., USAID will ensure appropriate, sufficient, and sustainable medical waste management through collaboration. If significant deficiencies* in medical waste management persist in spite of collaborative efforts, USAID must reallocate its resources to either independently close those gaps or to work in facilities where medical waste is properly managed.  
3) * Significant deficiencies are defined as not meeting “minimum approaches” as established by WHO Guidance for each of the following aspects of medical waste management: health care waste management policy; planning; waste minimization; segregation, storage and transport; treatment and disposal; wastewater management; waste management costing; health and safety practices; hygiene and infection control; training, education and public awareness.  
4) USAID must regularly monitor the state of healthcare waste management in the healthcare facilities it supports, and USAID should request reports on that monitoring with the same regularity as it receives reports on other programmatic objectives of the activity.  
5) When reports or other information indicate significant deficiencies in the management and disposal of medical waste in a given facility, USAID will commit its resources (independently or through collaborative efforts) to a speedy correction of significant deficiencies. In this case, USAID will request from implementing partners or prepare internally a Corrective Action Plan that will resolve the subject deficiencies as quickly as possible, not to exceed 6 months from the initial indications of deficiencies.  
6) As applicable, all efforts to strengthen or improve health commodity supply chains (e.g., pharmaceuticals, diagnostic tests kits (including HIV test kits), VMMC disposable kits etc.), including procurement, storage infrastructure, and distribution must address and take all practicable efforts to assure that adequate facilities, procedures and capacities are in place to properly manage expired, used, obsolete or surplus commodities and/or that plans and strategies incorporate and provide for such management. In any instance that a USAID project controls commodity at end-of-life, appropriate end-of-life management must be assured. Mandatory references for “appropriate end of life management”: WHO Guidelines for Safe Disposal of Unwanted Pharmaceuticals.  
https://apps.who.int/iris/bitstream/handle/10665/83549/9789241548564_eng.pdf?sequence=1 |
“Healthcare Waste” chapter, USAID Sector Environmental Guidelines:

7) Any healthcare waste generated by USAID-funded training, capacity building and/or technical assistance activities must be appropriately managed, including disposal, following WHO guidelines as well as the GKOE mandatory procedures and guidelines.

https://apps.who.int/iris/bitstream/handle/10665/85349/9789241548564_eng.pdf?sequence=1

8) Training, supervision, curricula development and other health care workforce capacity building must address appropriate management practices concerning the proper handling, use, and disposal of medical waste, including blood, sputum, and sharps, when techniques or care situations being addressed would generate and require disposal of hazardous or highly hazardous waste (e.g. sharps, afterbirth from delivery, waste from screening for HIV or STDs, sputum samples for diagnosis of TB). Note that this condition applies to activities targeting home care AND community health workers, not just those in clinics and health facilities. Wherever relevant, appropriate disposal mechanisms in home-based and community-based situations that are cost effective and safe must be identified and appropriately incorporated in training, protocols, and guidelines. This includes training home care and community health workers to deliver positive messages about personal and household hygiene, sanitation, and proper disposal of condoms and other potentially harmful materials.

9) All construction / rehabilitation activities shall be conducted following the principles as provided in the USAID Sector Environmental Guidelines - Small Scale Construction, which can be found at: https://www.usaid.gov/environmental-procedures/sectoral-environmental-social-best-practices/seg-construction/pdf.

10) For the construction/rehabilitation of existing facilities, prior to the commencement of any such activities, the implementing partner must complete and receive approval of an Environmental Review Form (ERF) (available at: http://www.usaidgems.org/subsidiary.htm). For small-scale construction of facilities in which the total surface area disturbed is less than 10,000 square feet, the implementing partner shall include in the ERF answers to the questions starting on page 6 of the Small-Scale Construction guidelines. The awardee/implementing partner must assure implementation of any environmental mitigation and monitoring conditions specified by the approved ERF.

11) For the construction of any facilities in which the total surface area disturbed exceeds 10,000 square feet (1,000 square meters) or is considered to have a significant effect on the environment, the IEE must be amended and may need an Environmental Analysis.

12) A qualified engineer should review all construction designs and activities
6.0 LIMITATIONS OF THIS INITIAL ENVIRONMENTAL EXAMINATION

The determinations recommended in this document apply only to projects/activities and sub-activities described herein. Other projects/activities that may arise must be documented in either a separate IEE, an IEE amendment if the activities are within the same project/activity, or other type of environmental compliance document and shall be subject to an environmental analysis within the appropriate documents listed above.

Other than projects/activities determined to have a Positive Threshold Determination, it is confirmed that the projects/activities described herein do not involve actions normally having a significant effect on the environment, including those described in 22 CFR 216.2(d).

In addition, other than projects/activities determined to have a Positive Threshold Determination and/or a pesticide management plan (PERSUAP), it is confirmed that the projects/activities described herein do not involve any actions listed below. Any of the following actions would require additional environmental analyses and environmental determinations:

- Support project preparation, project feasibility studies, or engineering design for activities listed in §216.2(d)(1);
- Affect endangered and threatened species or their critical habitats per §216.5, FAA 118, FAA 119;
- Provide support to extractive industries (e.g. mining and quarrying) per FAA 117;
- Promote timber harvesting per FAA 117 and 118;
- Lead to new construction, reconstruction, rehabilitation, or renovation work per §216.2(b)(1);
- Support agro-processing or industrial enterprises per §216.1(b)(4);
- Provide support for regulatory permitting per §216.1(b)(2);
- Lead to privatization of industrial facilities or infrastructure with heavily polluted property per §216.1(b)(4);
- Research, testing, or use of genetically engineered organisms per §216.1(b)(1), ADS 211;
- Assist the procurement (including payment in kind, donations, guarantees of credit) or use (including handling, transport, fuel for transport, storage, mixing, loading, application, clean-up of spray equipment, and disposal) of pesticides or activities involving procurement, transport, use, storage, or disposal of toxic materials. Pesticides cover all insecticides, fungicides, rodenticides, etc. covered under the Federal Insecticide, Fungicide, and Rodenticide Act per §216.2(e) and §216.3(b).

7.0 REVISIONS

Per 22 CFR 216.3(a)(9), when ongoing programs are revised to incorporate a change in scope or nature, a determination will be made as to whether such change may have an environmental impact not previously assessed. If so, this IEE will be amended to cover the changes. Per ADS 204, it is the responsibility of the USAID A/COR to keep the MEO/REA and BEO informed of any new information or changes in the activity that might require revision of this environmental analysis and environmental determination.

ATTACHMENTS:

Annex 1: Climate Risk Management Table for project level
Annex 2: Climate Risk Management Summary Table for activity level
## ANNEX 1: CLIMATE RISK MANAGEMENT SUMMARY TABLE FOR PROJECT LEVEL

<table>
<thead>
<tr>
<th>Defined or Anticipated Project/Activity Elements</th>
<th>Climate Risks</th>
<th>Risk Rating</th>
<th>How Risks are Addressed at Project Level</th>
<th>Further Analysis and Actions for Activity Design/Implementation</th>
<th>Opportunities to Strengthen Climate Resilience</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intervention Category 1: Non bio-medical interventions to prevent HIV/AIDS and TB</strong></td>
<td>Increased frequency, intensity and duration of drought, floods and heat waves may directly impact locations of capacity building activities, practical training or community events, with floods possibly affecting access routes to these activities</td>
<td>Low</td>
<td>Not applicable</td>
<td>Implementing partners identify high periods of rain and adjust timing of activities accordingly.</td>
<td>Not applicable</td>
</tr>
<tr>
<td>All other illustrative activities identified within this Intervention Category (Section 1.3, Table 1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Intervention Category 2: Bio-medical and/or clinical efforts to test for and/or prevent HIV/AIDS and TB</strong></td>
<td>Increased frequency, intensity and duration of rain and/or flooding may impact the deployment or use of diagnostic equipment</td>
<td>Low</td>
<td>Not applicable</td>
<td>Implementing partners identify high periods of rain and adjust timing of activities accordingly.</td>
<td>Not applicable</td>
</tr>
<tr>
<td>HIV testing, TB diagnostic procedures.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All other illustrative interventions identified within this Intervention Category (Section 1.3, Table 1)</td>
<td>Increased frequency, intensity and duration of drought and raining and/or flooding may directly impact locations of capacity building activities, practical training or events,</td>
<td>Low</td>
<td>Not applicable</td>
<td>Implementing partners identify high periods of rain and adjust timing of activities accordingly.</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

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2 Purpose/Sub-purpose, Area of Focus, or Activity/ Mechanism, etc.
3 List key risks related to the project elements identified through either the strategy- or project-level climate risk assessment.
4 Low/Moderate/ High
5 Describe how risks have been addressed at the project level. If a decision has been made to accept the risk, briefly explain why.
6 Describe CRM measures to be integrated into activity design or implementation, including additional analysis, if applicable.
7 Describe opportunities to achieve development objectives by integrating climate resilience or mitigation measures.
| Intervention Category 3: Bio-medical and/or clinical care and treatment for those infected with HIV/AIDS and TB |
|---|---|---|---|
| As applicable, provision of commodities for treatment of TB and HIV/AIDS | Increased frequency, intensity and duration of rain and/or flooding and may impact the procurement, lifetime or use | Low | Not applicable |
| All other illustrative interventions identified within this Intervention Category (Section 1.3, Table 1) | Increased frequency, intensity and duration of drought and raining and/or flooding may directly impact locations of capacity building activities, practical training or events, with floods possibly affecting access routes to these | Low | Not applicable |

| Intervention Category 4: Support for health system planning and management, and policy development and implementation |
|---|---|---|---|
| All other illustrative interventions identified within this Intervention Category (Section 1.3, Table 1) | Increased frequency, intensity and duration of floods and heat waves may directly impact locations of capacity building activities, practical training, data collection activities, or events, with floods possibly affecting access routes to these activities. Periodic droughts may cause disruption of availability of water within permanent or temporary infrastructures (i.e. park homes). | Low | Not applicable |
| | Implementing partners identify high periods of rain and adjust timing of activities accordingly. | Not applicable |
## Annex 2: Climate Risk Management for activity level

<table>
<thead>
<tr>
<th>Defined or Anticipated Project/Activity Elements</th>
<th>Climate Risks</th>
<th>Risk Rating</th>
<th>How Risks are Addressed at Project Level</th>
<th>Further Analysis and Actions for Activity Design/Implementation</th>
<th>Opportunities to Strengthen Climate Resilience</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activity 1:</strong> Support the Ministry of Health (MoH) to provide comprehensive HIV and AIDS/TB services in the <strong>Hhohho and Shiselweni regions</strong> by providing patient outcome-driven mentorship and technical assistance</td>
<td>1. The country is subject to frequent erratic weather patterns including seasonal flooding and mudslides and cycles of extreme drought in especially highly rural vulnerable zones in Eswatini where the project will operate. 2. 70% of the Eswatini population are rural subsistence-level farmers who depend on household gardens and farming for the key staple, maize. In 2016, the drought led to a 64% reduction in maize production and an 11% increase in malnutrition and</td>
<td>Low</td>
<td>Eswatini is already experiencing the effects of climate change and is adapting strategies accordingly (detailed below). 1. The government has a national emergency management system in place and a National Emergency preparedness response Plan (NERMAP) that covers Emergency flooding situations, other emerging infectious and water-borne disease outbreaks and natural disasters. 2. WHO, UNICEF and WFP have taken the lead in disaster preparedness work. The 2016 Drought resulted in WHO</td>
<td>Ensure there are flood zone mitigation measures and famine early warning systems in place in each of the two regions and there are strong open lines of communication with regional health management teams. RHAP and ROAA will ensure that the awardee develops EMMP within first 90 days post award. Subsequently, the awardee will be required to update the approved EMMP as needed throughout the life of each activity.</td>
<td>1. Expanding delivery of HIV/TB services at fixed sites and work with regional health management teams (RHMT) strengthens the regional and fixed site health platform that is essential to mitigate, screen and readily address some of the drought related nutritional status for PLHIV including women and children. 2. The activities will support RHMTs to improve and closely monitor changes in</td>
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A 31% increase in diarrheal diseases. 26% of children <5 were stunted in 2014 prior to the peak drought period.

3. The Drought resulted in extreme water rationing measures and forced families to make difficult choices about water use for hygiene and sanitation.

4. In 2017, floods washed out dirt roads and hillsides & periodically decreased the ability of individuals’ use/access to fixed health services. The drought led to less disposable income for patient transport to health services.

5. In the lower veld there is endemic malaria and a higher prevalence of malaria during the rainy season that is expected to worsen if mitigation measures such as larvicide and vector control are not taken.

6. Water-borne diseases such as schistosomiasis present in most lakes, streams and rivers will worsen with climate change.

Support for the Management of Acute Malnutrition in all affected areas. Community based nutrition and disease surveillance was strengthened through empowering community health volunteers to be able to identify malnourished and sick children and adults and refer them for treatment. Tools for diagnosing malnutrition which included scales for weight measurement and height boards were procured as well as Ready to Use supplementary feeding for the treatment of children with severe malnutrition in health facilities. A Mass Drug Administration for school aged children for schistosomiasis and soil transmitted helminthiasis was conducted.

3. A National Disease Surveillance and Response system was activated and included updating the immediate Disease Notification System to incorporate disease threats due to drought. This system enables the Government of the Kingdom of Eswatini (GKoE) to detect early warning signs for disease outbreaks and facilitates a quick response.

HIV lay counselors at health sites can be trained to recognize the early warning signs for drought-related effects such as malnutrition and quickly communicate these findings to health providers.

Should critical humanitarian emergencies arise in the future that impact on gains in PEPFAR programming, consideration will be given to:

Streamline administrative processes to allow for more agile, adaptive programming and contingency planning,

Ensure annual investments are supporting the full integration of nutritional assessment services (NACS) within testing, care and treatment programs,

Mandate that PEPFAR partners routinely collect and use nutrition cascade indicators to inform clinical assessment and case management, and

health status and overall performance by facilities. The two regions' improved analysis and use of HIV, TB and MNCH data strengthens their ability to review the health effects of natural disasters.

3. Expanding delivery of an integrated package of HIV/TB and related RMNCH services and products at fixed facilities and by mobile teams offers an opportunity to strengthen the capacity of health services providers and increase understanding and awareness of illnesses resulting from climate change.

Additional government financing will be required to bring services to

AFR / ESWATINI HIV/AIDS PREVENTION, CARE AND TREATMENT IEE

SIMPLIFIED AMENDMENT TEMPLATE VERSION 3.1
leading to more diarrheal diseases.

7. Climate change may also impact local agricultural production, thereby negatively affecting livelihoods, lowering household revenue and contribute to increasing rates of malnutrition unless targeted food subsidies are put in place for the poor.

8. Flooding disrupts the supply chain for essential medicines for HIV/TB services.

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| Additional government financing will be required to bring services to vulnerable populations and to sustain their use to ensure long-term epidemic control. Climate change needs to be factored into MOH sustainability plans for HIV and TB epidemic control. |
| assessment and case management, and Integrate therapeutic food as a medical commodity within national Ministries of Health (MOH) supply chain management systems. |
| Activity 3: Provide national-level technical assistance to the Human Resources for Health, Health Information Management systems, Supply chain and MNCH platform to strengthen PMTCT, pediatric HIV care and treatment and MNCH programs | Potential impact of drought to the HIV and AIDS clinical programs: While a drought affects everyone living in an impacted region, the effects are particularly harsh for people with pre-existing health conditions such as HIV. Relationships between poor nutritional status and HIV-related outcomes, such as vulnerability to infection, disease progression, decreased survival, adherence to antiretroviral therapy (ART) and poor virologic response while on ART, are well documented. In addition, a frequently cited 2013 report, Income Shocks and HIV in Africa, estimates that infection rates in HIV-endemic rural areas increase by 11 percent for every recent drought. | Low | I. The government has a national emergency management system in place and a National Emergency preparedness response Plan (NERMAP) that covers Emergency flooding situations, other emerging infectious and water-borne disease outbreaks and natural disasters. 2. WHO, UNICEF and WFP have taken the lead in disaster preparedness work. The 2016 Drought resulted in WHO support for the Management of Acute Malnutrition in all affected areas. Community based nutrition and disease surveillance was strengthened through empowering community health volunteers to be able to identify malnourished and sick children and adults and refer them for treatment. Tools for diagnosing malnutrition which included scales for weight measurement and height boards were procured as well as Ready to Use supplementary feeding for the treatment of children with severe malnutrition in health facilities. A Mass Drug Administration for school aged children for schistosomiasis and soil transmitted helminthiasis was conducted. | USG interagency health team can explore through various central or regional mechanisms institutional capacity and lessons learned and adapt programming accordingly. HIV lay counselors at health sites can be trained to recognize the early warning signs for drought-related effects such as malnutrition and quickly communicate these findings to health providers. In the event that climate change affects road conditions that interrupt in-person technical assistance, support can continue via telecom, videoconferencing or other means of virtual support. When climate change incidents interrupt communications systems and make virtual assistance impossible, the program will collaborate with the national disaster management system. | 1. Expanding delivery of HIV/TB services at fixed sites and work with regional health management teams (RHMT) strengthens the regional and fixed site health platform that is essential to mitigate, screen and readily address some of the drought related nutritional status for PLHIV including women and children. 2. The activities will support RHMTs to improve and closely monitor changes in health status and overall performance by facilities. The two regions’ improved analysis and use of HIV, TB and MNCH data strengthens their ability to review the health effects of natural disasters. 3. Expanding delivery of an integrated package of HIV/TB and related RMNCH services and products at fixed facilities and by mobile |
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