



INITIAL ENVIRONMENTAL EXAMINATION

PROJECT/ACTIVITY DATA

Project/Activity Name:	USAID Bureau of Humanitarian Assistance (BHA) FY20 Request for Applications (RFA) for Development Food Security Activities in Ethiopia
Geographic Location(s) (Country/Region):	Tigray, Amhara and Oromia regions in Ethiopia
Amendment (Yes/No)	N
Implementation Start/End Date	Pre-Award, to be determined upon award(s)
Solicitation/Contract/Award Number(s):	72DBHA20RFA00006
Implementing Partner(s):	To be determined upon award(s)
Link to IEE:	Ethiopia FY20 RFA IEE¹
Link of Other, Related Analyses:	Ethiopia 118/119 , Ethiopia 2016 Climate Change Risks and Opportunities Report , Ethiopia Climate Risk Profile (CRP) in DFSA Geographies

ORGANIZATIONAL/ADMINISTRATIVE DATA

Implementing Operating Unit(s): (e.g. Mission or Bureau or Office)	Bureau of Humanitarian Assistance (BHA)
Funding Operating Unit(s): (e.g. Mission or Bureau or Office)	Same as above
Other Affected Operating Unit(s):	Africa Bureau, RFS, USAID/Ethiopia
Lead BEO Bureau:	Humanitarian Assistance
Funding Account(s) (if available):	Title II Development and Title II Emergency
Original Funding Amount:	\$550M, Title II over a five-year period
Prepared by:	Environmental Compliance Support (ECOS) contract
Date Prepared:	June 2020

ENVIRONMENTAL COMPLIANCE REVIEW DATA

Analysis Type:	<input checked="" type="checkbox"/> Initial Environmental Examination	<input type="checkbox"/> Amendment
Environmental Determination(s):	<input type="checkbox"/> Categorical Exclusion(s) <input type="checkbox"/> Negative <input checked="" type="checkbox"/> Positive <input checked="" type="checkbox"/> Deferral	
IEE Expiration Date (if applicable):	2026, End of Awards	
Additional Analyses/Reporting Required:	Implementing Partners to develop Supplemental IEEs	
Climate Risk Rating for Risks Identified:	Low ___X___ Moderate ___X___ High ___X___	

¹ The Environmental Compliance Database (ECD) is experiencing technical issues. This IEE will be posted at the following link when the ECD is functional: https://ecd.usaid.gov/document.php?doc_id=52516

THRESHOLD DECISION MEMO AND SUMMARY OF FINDINGS

PURPOSE AND SCOPE OF THE INITIAL ENVIRONMENTAL EXAMINATION

The purpose of this RFA-level Initial Environmental Examination (IEE) is to establish environmental compliance procedures and templates² for future awarded activities under the Food for Peace (BHA)³ [Fiscal Year 2020 Request for Application \(RFA\)](#) for Ethiopia Development Food Security Activities.

ACTIVITY SUMMARY

As specified in the RFA these activities will contribute to the achievement of resilience and economic and social development plans while reducing food insecurity in the target countries

ENVIRONMENTAL DETERMINATIONS AND CLIMATE RISK RATINGS

A **Deferral** is recommended for all interventions, pursuant to 22 CFR 216.3(a)(7)(iv), that are not yet well defined in scope or technical approach.

Similarly, Climate Risk Ratings for interventions that are not yet well defined in scope or technical approach are postponed to be assessed with the Supplemental IEE.

BEO SPECIFIED CONDITIONS OF APPROVAL

- [Condition 1:](#) Applicant to submit Environmental Safeguards Plan.
- [Condition 2:](#) Awardee to develop Supplemental IEE for Mission and Washington clearance⁴.
- [Condition 3:](#) Implement environmental monitoring requirements. This includes development and alignment of Environmental Mitigation and Monitoring Plan (EMMP) and Climate Risk Management (CRM) with performance M&E systems.
- [Condition 4:](#) Report on USAID environmental compliance. All activities are required to submit Environmental Status Reports (ESRs⁵) annually before the Pipeline Resource Estimate Proposal (PREP). Additional reporting is reflected in the Annual Results Report (ARR).
- [Condition 5:](#) Develop an Environmental Assessment for any actions with potential for significant impact to ecological habitats, as determined by USAID.

² Word versions of the required templates can be found at a Google drive [here](#).

³ Please note that per USAID's strategic reorganization, the offices of Food for Peace (FFP) and Foreign Disaster Assistance (OFDA) have now merged into the Bureau for Humanitarian Assistance.

⁴ The Supplemental IEE is subsidiary analysis to the RFA-IEE, and may also be referred to as the "Activity IEE".

⁵ The ESR is similar to the Environmental Mitigation and Monitoring Report (EMMR) used elsewhere in USAID. However, the ESR meets purposes of annual reporting and budget planning for environmental compliance.

[Condition 6:](#) Plan for a Pesticide Evaluation Report and Safe Use Action Plan (PERSUAP), which includes for pesticide procurement and/or use (e.g. agriculture, livestock, public health, construction), and/or commodity fumigation mitigation requirements.

[Condition 7:](#) Support the Mission in the development of any Best Practice Review (BPR) for environmental safeguarding.

[Condition 8:](#) Ensure compliance with partner country environmental regulations, including PSNP ESMF.

*Please note: Guidance and requirements for all COVID-19-impacted activities and COVID-19 response activities are found in Annexes A-D.

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. Any significant delinquencies and lack of compliance with 22 CFR 216 will result in a [Corrective Action Plan \(CAP\)](#)⁶.

⁶ The CAP is mandatory when a project or activity is found to be noncompliant—e.g., failure to comply with IEE conditions, use of pesticides without a PERSUAP, or failure to follow other ADS 204 procedures. The CAP is initiated by USAID and directed to the Process Owner (e.g., AOR/COR, Mission Director, Implementing Partner).

USAID APPROVAL OF INITIAL ENVIRONMENTAL EXAMINATION

PROJECT/ACTIVITY NAME: USAID Bureau for Humanitarian Assistance (BHA) FY20 Request for Applications Initial Environmental Examination (RFA IEE) for Development Food Security Activities in Ethiopia

Bureau Tracking ID: BHA FY20 RFA IEE Ethiopia

Approval:	<u>Cleared by email Taylor Garrett, Director acting (BHA Office of Africa)</u>	<u>6/29/30 Date</u>
Clearance:	<u>Cleared Yitayew Abebe, Mission Environmental Officer (MEO)</u>	<u>6/26/30 Date</u>
Clearance:	<u><i>Erika Clesceri</i> Erika J. Clesceri, BHA Bureau Environmental Officer (BEO) and Climate Integration Lead (CIL)</u>	<u>7/2/20 Date</u>

DISTRIBUTION:

Washington: Brian Hirsch (Environmental Protection Officer); Allison Brown (Regional Environmental Compliance Advisor, USAID/AFR/SD/EGEA:CAMRIS International); Colin Quinn (Technical Advisor, USAID/AFR/SD); William Thomas (RFS BEO); Saba Moritz (BHA Senior Contracts and Grants Specialist); Martin Hayes (BHA Officer, Ethiopia Team); Clint Zarnosky (BHA Officer, Ethiopia Team); Matt Conner (BHA Program Assistant, Ethiopia Team); and Clifford Davison (BHA acting Team Lead, Ethiopia Team)

Field: Yitayew Abebe (Mission Environmental Officer, USAID/Ethiopia), David Kinyua (Regional Environmental Advisor, USAID/KEA/SPA); Ross Wood (USAID/Ethiopia/AltTeam Lead); Endale Lemma (USAID/Ethiopia/Alt Team Lead)

INITIAL ENVIRONMENTAL EXAMINATION

TABLE OF CONTENTS

- 1.0 ACTIVITY DESCRIPTION 6**
 - 1.1 PURPOSE AND SCOPE OF THE IEE 6
 - 1.2 ACTIVITY OVERVIEW 6
 - 1.3 ACTIVITY DESCRIPTION 7
- 2.0 BASELINE ENVIRONMENTAL INFORMATION 8**
 - 2.1 LOCATIONS AFFECTED AND ENVIRONMENTAL CONTEXT (ENVIRONMENT, PHYSICAL, CLIMATE, SOCIAL) 8
 - 2.2 APPLICABLE AND APPROPRIATE PARTNER COUNTRY AND OTHER INTERNATIONAL STANDARDS (E.G. WHO), ENVIRONMENTAL AND SOCIAL LAWS, POLICIES, AND REGULATIONS 18
- 3.0 ANALYSIS OF POTENTIAL ENVIRONMENTAL RISK..... 21**
 - 3.1 ENVIRONMENTAL IMPACTS OF COMMODITY FUMIGATION 21
 - 3.2 CLIMATE RISKS TO COMMODITY FUMIGATION 22
 - 3.3 OTHER BHA PROGRAM AREAS AND ELEMENTS 22
- 4.0 ENVIRONMENTAL DETERMINATIONS 23**
 - 4.1 RECOMMENDED ENVIRONMENTAL DETERMINATIONS 23
 - 4.2 CLIMATE RISK MANAGEMENT 23
 - 4.3 ENVIRONMENTAL THRESHOLD DETERMINATIONS AND CLIMATE RISK RATINGS 23
 - 4.4 CLIMATE RISK MANAGEMENT SUMMARY NARRATIVE 23
- 5.0 CONDITIONS AND MITIGATION MEASURES 27**
 - 5.1 CONDITIONS 27
- 6.0 LIMITATIONS OF THIS INITIAL ENVIRONMENTAL EXAMINATION 40**
- 7.0 REVISIONS..... 41**
- ATTACHMENTS: 41**
- ANNEXES: 41**

1.0 ACTIVITY DESCRIPTION

1.1 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 interventions described herein and recommend determinations and, as appropriate, conditions, for these activities. Upon approval, these determinations become affirmed, per 22 CFR 216 and BEO Specified Conditions become mandatory obligations of implementation. This RFA-level IEE (herein, "RFA IEE") also includes the RFA-level Climate Risk Management screening results in accordance with USAID policy (specifically, [ADS 201mal](#)).

This RFA IEE is a critical element of USAID's mandatory environmental review and compliance process meant to achieve environmentally sound activity design and implementation. This RFA IEE, cleared by BHA Washington, also establishes the requirements for post-award implementing partners (IPs) to develop their own Supplemental IEEs for Mission clearance and outlines other BEO-specified Conditions for implementation and reporting throughout the life of the awards.

This RFA IEE only analyzes the environmental impacts and climate risks related to Commodity Fumigation, given that environmental impacts of and climate risks to this activity are widely known and for the most part, globally consistent. Other activity-types must be analyzed in the partner's Supplemental IEE to ensure the baseline environmental situation is taken into account.

1.2 ACTIVITY OVERVIEW

The Bureau of Humanitarian Assistance (BHA), in the U.S. Agency for International Development's (USAID) is the U.S. Government leader in international food assistance. Through BHA, USAID supports multi-year development (i.e., non-emergency) food security activities to improve and sustain the food and nutrition security of vulnerable populations. Development activities are mandated in the Food for Peace Act and are aligned with the [USAID 2016-2025 Food Assistance and Food Security Strategy](#). These activities work at the individual, household, community and systems level to address the underlying causes of chronic and acute food insecurity and strengthen transformative opportunities. USAID also provides emergency food assistance to address needs arising from natural disasters and complex emergencies, which are often characterized by insecurity and population displacement.

Overall, the Strategic Results Framework Strategic Objectives (SOs) and accompanying Intermediate Results (IRs) address key drivers of food insecurity, creating a map of the broad platform of capabilities that BHA and its partners bring to bear in supporting improved food security for vulnerable populations. Implementing partners are expected to use innovative approaches to promote environmental risk management to improve and sustain food and nutrition security of vulnerable populations, as articulated in both SO1 and SO2 of the [USAID 2016-2025 Food Assistance and Food Security Strategy](#).

As specified in the RFA, BHA investments in the target BHA geographies⁷ will contribute to USAID’s Strategy by strengthening community resilience, protecting and enhancing livelihoods, and improving food and nutritional security of vulnerable households.

1.3 ACTIVITY DESCRIPTION

BHA development food security activities in Ethiopia are intended to build resilience in populations vulnerable to chronic hunger and repeated hunger crises, and to reduce their future need for ongoing or emergency food assistance.

COMMODITY MANAGEMENT: FUMIGATION

BHA makes commodity donations to private voluntary organizations (PVOs) and international organizations (IOs), such as the UN’s World Food Program (WFP). The large majority of commodities are purchased from US farmers and shipped abroad from US ports; however, activities can also distribute locally, regionally, internationally procured (LRIP) food commodities as long as the use of LRIP resources clearly supports interventions that sustainably reduce vulnerability to food insecurity.

In order to prevent the spoilage and waste of food commodities procured by development food security funds, a range of protective measures are implemented in commodity storage warehouses. One common protective measure to prevent loss of commodity from insect, fungal or mammal infestations is fumigation utilizing phosphine gas and/or the application of contact pesticides to warehouse surfaces.

OTHER BHA ACTIVITIES AND SECTORS

The exemplary range of sectors which may be supported within these development food security activities are listed below and further described in the [FY20 RFA for Development Food Security Activities in Ethiopia](#).

TABLE 1: EXAMPLE ACTIVITIES AND SECTORS

Commodity Fumigation
Other BHA Program Areas or Elements
Civil Society
HIV/AIDS
Maternal and child health
Family planning and reproductive health
Water supply and sanitation
Environment
Climate Change - adaptation
Climate Change - clean energy
Nutrition
Basic education
Social assistance
Agriculture

⁷ Tigray, Amhara and Oromia regions in Ethiopia

Private sector productivity
Financial sector
Protection, assistance and solutions
Disaster readiness

2.0 BASELINE ENVIRONMENTAL INFORMATION

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

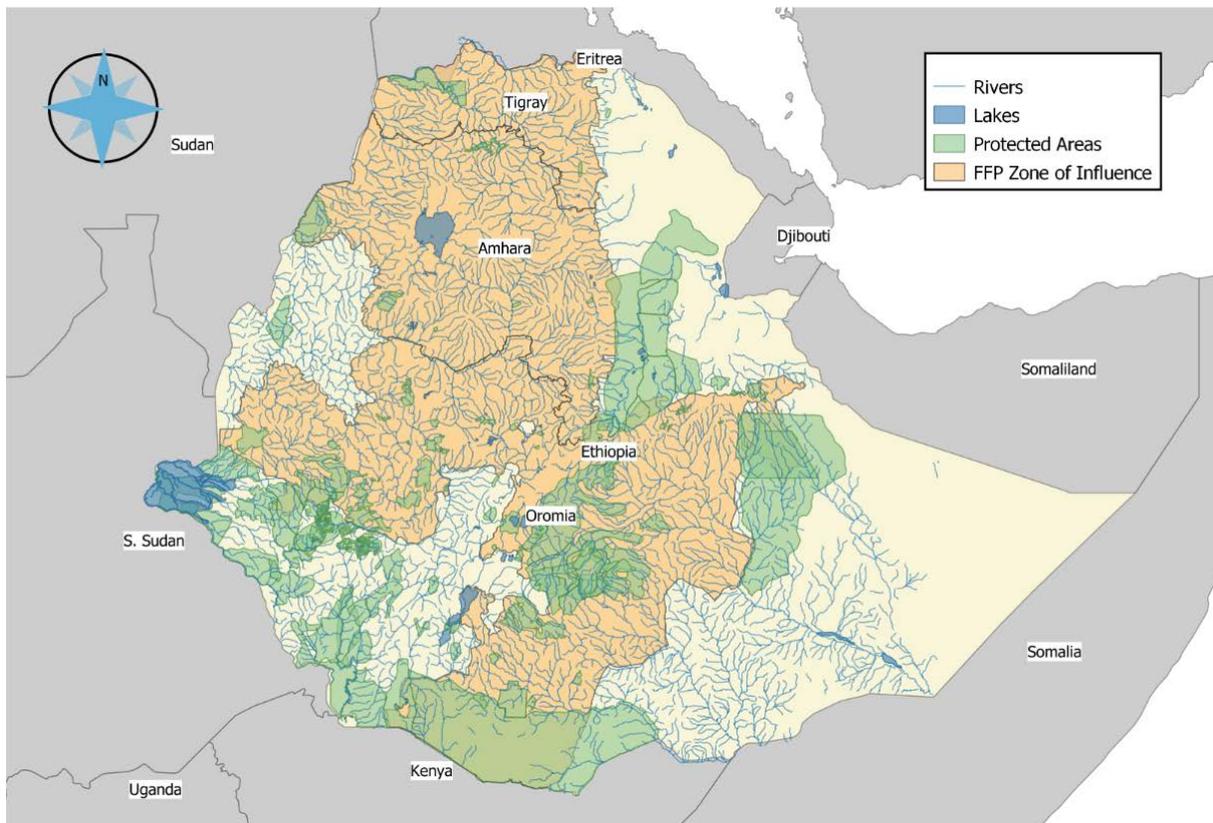


Figure 1. Map of FFP Geographies* and Protected Areas in Ethiopia;
 Sources: Boundary, Ethiopia, 2015. (<https://geo.nyu.edu/catalog/stanford-qy496hh6563>)
 Inland Waters, Ethiopia, 2015. (<https://geo.nyu.edu/catalog/stanford-nr809hb2907>)
 Rivers, Ethiopia, 2015 (<https://geo.nyu.edu/catalog/stanford-zc256dv2828>)
 Ethiopia, Africa, WDPA. (<https://www.protectedplanet.net/country/ET>)

*Specific orientation within FFP Geographies to be determined

Implementing partners are expected to design their programs to address interventions area-specific biophysical, socioeconomic, and cultural conditions, as well as the political and institutional context in which the development food security activities will operate. Applicants are expected to draw from existing USAID or other country-level environmental analyses, including USAID climate change vulnerability and adaptation analyses (which can be found by searching Ethiopia in the Climatelinks resource library), Foreign Assistance Act (FAA) 118/119 Biodiversity and Tropical Forestry Assessments, and Country Specific Information reports.

The following sub-sections provide a brief overview of the baseline climate and environmental information for Ethiopia, pertinent to the sub-national areas in the geographic zones in the Oromia, Amhara and Tigray regions⁸. It is crucial to understand the baseline situation (the existing environmental situation or condition in the absence of USAID activities) in order to understand and measure the impacts, or change from the baseline, caused by the activity.

- Climate Risks
- Key Ecological Habitats & Species
- PERSUAP and Pesticides
- Invasive Species
- Water Resources
- Other Key Stakeholders

CLIMATE RISKS

Ethiopia has a diverse landscape and climate that includes equatorial rainforests in the south and southwest, Afro-Alpine forests on the summits of the Semien and Bale mountains, and desert-like conditions in the lowlands of the north-east, east, and south-east⁹. Ethiopia has three traditional agro-climatic zones: the warm and semi-arid Kolla (<1,500m above sea level), the cool, sub-humid, temperate Woinadega (1,500-2,00m above sea level); and the cool and humid Dega (>2,400m above sea level). As a result of population increases and expanded agricultural activities, the Bereha (hot and arid) and Wurch (cold and moist) zones have been added at either end of the agro-climatic spectrum. Ethiopia's three seasons span a rainy season from June-September (kiremt), a dry season from October-January (bega), and a shorter rainy season from February-May (belg), some of which occur only in certain parts of the country¹⁰.

According to the USAID Climate Risks in BHA Geographies - Ethiopia (2020)¹¹, mean annual temperatures are projected to increase by 1.4°C to 1.8°C by the year 2050. The number of hot days (maximum temperature over 25°C) is projected to increase by 25–32 days, while the number of hot nights (maximum temperature over 20°C) is projected to increase by 37–55 days.

The lowlands of Ethiopia have historically been exposed to high temperatures and prolonged droughts, whereas the highlands have historically experienced more intense and irregular rainfall. [The USAID/Ethiopia Climate Change Risks and Opportunities Report \(2016\)](#) indicates that future rainfall projections are uncertain and could range from -25 percent to +30 percent by 2050, yet the proportion of “heavy” rainfall events could see annual increases of up to 18 percent. In 2019, the March-May seasonal rains in the southern/southeastern pastoral areas of Oromia experienced delayed onset and saw below-average rainfall, further challenging recovery in these areas from the 2016/2017 drought¹².

Ethiopia has experienced chronic localized drought events and seven major droughts (five of which resulted in famines). Droughts and their related impacts are expected to worsen as a result of future climate variability and change, with the potential to further accelerate levels of

⁸ Note that the Ethiopia Joint Emergency Operation Program (JEOP) operates in Afar, Amhara, Oromiya, SNNPR, Somali and Trigray (and Dire Dawa Administrative Council)

⁹ World Bank. “Ethiopia.” *Climate Change Knowledge Portal*, retrieved 6 November from <https://climateknowledgeportal.worldbank.org/country/ethiopia>.

¹⁰ USAID. [USAID/Ethiopia Climate Change Risks and Opportunities Report](#). December 2016.

¹¹ USAID Climate Risks in BHA Geographies – Ethiopia, <https://www.climatelinks.org/resources/climate-risks-food-peace-geographies-ethiopia>

¹² USAID. [Food Assistance Fact Sheet: Ethiopia](#). Updated August 21, 2019.

land degradation, soil erosion, deforestation, biodiversity loss, desertification, recurrent floods, and water and air pollution¹³.

According to the USAID Climate Risks in BHA Geographies - Ethiopia (2020)¹⁴, livelihoods in Ethiopia are largely tied to topography and rainfall. In the high massif—where most Ethiopians reside—crop production is the main livelihood, though wealthier households keep livestock as well. In areas that are slightly drier and slightly lower in elevation and in areas with rivers and seasonal watercourses that allow for “flood-retreat” cultivation, households often rely on agropastoralism, meaning they depend on a mix of crop production and herding. Lower lying areas generally do not receive enough rainfall to support crops, and households are therefore reliant on pastoralism. Within the BHA target geographies, livelihoods are largely crop-based, though parts of eastern Oromia are agropastoral.

In Ethiopia, a lack of rainfall and erratic seasonal rainfall are the most widespread hazards to livelihoods in the eastern parts of the geography regions. In western parts of geography regions, livestock and crop pests and diseases tend to have the largest impact on livelihoods. Notably, livelihoods have been disrupted as conflict in 2018 led to major displacement, including in the target geographies of Amhara and Oromia. As of May 2019, around 2.2 million people remained internally displaced¹⁵.

Additional information on projected changes in climate and climate risks to food security in Ethiopia is compiled in the USAID Climate Risks in BHA Geographies – Ethiopia, which will be posted on the [USAID Country Website](#) as well as on Climatelinks.org. All relevant threats should be considered by implementing partners in their Supplemental IEEs.

KEY ECOLOGICAL HABITATS & SPECIES

The geographic zones in Tigray, Oromia, and Amhara regions contain ecosystems that serve as important sources of biodiversity. See Figure 1 which shows the regions targeted and their proximity to protected areas.

Ecosystem services in Ethiopia are the bases for economic and social development and provide food, freshwater, fuel wood, nutrition, and genetic resources, as well as various supporting (soil formation, nutrient cycling, primary production), regulating (climate regulation, disease regulation, water regulation, purification, and pollination), and cultural (spiritual, religious, recreation, eco-tourism, aesthetic, inspirational, and cultural heritage) services. However, habitat conversion, unsustainable utilization, invasive alien species, climate change, and pollution, are resulting in the fragmentation and degradation of natural habitats, disturbances of ecosystem functions, and loss of biodiversity and ecosystem services¹⁶.

Ethiopia has several United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage sites, including one natural site, the Simien National Park (located in

¹³ World Bank. “Ethiopia.” *Climate Change Knowledge Portal*, retrieved 6 November from <https://climateknowledgeportal.worldbank.org/country/ethiopia>.

¹⁴ USAID Climate Risks in BHA Geographies – <https://www.climatelinks.org/resources/climate-risks-food-peace-geographies-ethiopia>

¹⁵ Ibid.

¹⁶ Republic of Ethiopia. *Ethiopia’s National Biodiversity Strategy and Action Plan 2015-2020*. Ethiopian Biodiversity Institute, Addis Ababa, 2015.

Amhara), and eight cultural sites, five of which are in target geographies, with one in Tigray, two in Amhara and two in Oromia.

Ethiopia has abundant wetlands and protected areas. The following two sections describe the largest or most important wetlands and protected areas in each of the geographic zones. However, in their Supplemental IEEs implementing partners should provide a similar analysis of the wetlands and protected areas closest to or affected by their planned activities.

WETLANDS

Ethiopia has immense wetland resources. The wetlands in Ethiopia include many forms such as lakes, swamps, marshy wetlands, peat wetlands, flood plains, high mountain lakes, natural and manmade ponds. In Ethiopia there are large areas of wetlands which are distributed in various parts of the country in almost all altitudinal ranges from lowland up to top of high mountains. The Amhara region has the second highest proportion of wetlands (2.7%), Oromia contains 1.1% of wetlands while Tigray has the lowest proportion (0.16%)¹⁷. Although poorly studied and documented, wetlands are estimated to cover about 2% of the total land mass of the country.¹⁸ Ethiopia is currently not a signatory to the RAMSAR Convention. Wetlands International therefore started a dialogue with Ethiopian delegates on the added value of ratifying the convention including sponsoring the delegates to attend the RAMSAR COP 13.

The wetlands of Amhara region are distributed all over the region, but the largest portion of the wetlands are found in the Abbay Basin drainage system associated with Lake Tana such as Fogera, Dembia, Kunzela flood plains, marshes and swamps are dominant within Awi and Western and Eastern Gojjam zones. Lake Tana located in the Amhara region in the north-western Ethiopian Highlands is the source of the Blue Nile and the largest lake in Ethiopia. Lake Tana is fed by the Lesser Abay, Reb and Gumara rivers. In 2015, the Lake Tana region was nominated as a UNESCO Biosphere Reserve recognizing its national and international natural and cultural importance. The lake water level is regulated through a weir where the lake discharges into the Blue Nile. Lake Tana has a number of islands, whose number varies depending on the level of the lake. Since there are no inflows that link the lake to other large waterways and the main outflow, the Blue Nile, is obstructed by the Blue Nile Falls, the lake supports a highly distinctive aquatic fauna, which generally is related to species from the Nile Basin. There are 27 fish species in Lake Tana and 20 of these are endemic. This includes one of only two known cyprinid species flocks. Lake Tana supports a large fishing industry, mainly based on the *Labeobarbus* barbs, Nile tilapia and sharptooth catfish. Among other fauna, the lake supports relatively few invertebrates: There are fifteen species of molluscs, including one endemic, and also an endemic freshwater sponge. About 230 species of birds, including more than 80 wetland birds such as the great white pelican, African darter, hamerkop, storks, African spoonbill, ibis, ducks, kingfishers and African fish eagle, are known from Lake Tana¹⁹.

The Oromia region has varied wetlands from small wetlands widely distributed to larger wetlands located deep in forested areas. The dominant types found in the region include valley bottom swamps, marshes, floodplains, human made reservoirs mainly Fincha, peat swamps and forested and riverine wetlands.

¹⁷ The Federal Democratic Republic of Ethiopia Abbay Basin Authority. Wetlands Ecosystems Coverage, Status and Threats in the Abbay River Basin. December 2013.

¹⁸ Journal of Natural Sciences Research. A Review on the Importance, Distribution and Threat of Ethiopian Wetlands. DOI: 10.7176/JNSR. 2019

¹⁹ Lake Tana Biosphere Reserve. <https://www.laketana-biosphere.com/>

The Bale Mountains in the Oromia region contain the headwaters of approximately 40 rivers, including 5 major rivers. The Bale Mountains provide important ecosystem services, such as water for agricultural use and hydroelectric energy generation to 10-12 million people living downstream in southeastern Ethiopia, as well as Somalia and Kenya²⁰. Lake Zway is located on the border between the regions of Oromia and the Southern Nations, Nationalities, and Peoples' Region. The lake is known for its population of birds and hippopotamuses. Lake Ziway supports a fishing industry; according to the Ethiopian Department of Fisheries and Aquaculture, 2454 tonnes of fish are landed each year, which the department estimates is 83% of its sustainable amount.

The Tigray region has the fewest number of wetlands in all of Ethiopia. Lake Ashenge is a lake in the southern Region of Ethiopia. The lake is fed by a number of small streams from the surrounding areas and there is no drainage out of it. The flora of this area has never been documented. Some trees are found in the area, often confined to domestic gardens, including Acacia shrubs, Croton macrostachyus, Vernonia amygdalina and Buddleja polystachya. Mixed agriculture dominates the area, with cereals and pulses the main crops, and cattle and sheep the main domestic animals. Fish were introduced into the lake, but for unknown reasons the harvest has not been sustainable. It is estimated that the lake holds 20,000 waterbirds on a regular basis, including the endemic Serinus nigriceps, Columba albitorques, Onychognathus albirostris and Corvus crassirostris²¹.

PROTECTED AREAS

The [2016 USAID/Ethiopia Tropical Forest and Biodiversity \(FAA 118/119\) Assessment](#) provides an overview of Ethiopia's protected areas, which encompass national parks, wildlife reserves and sanctuaries, and controlled hunting areas and forest priority areas. Wildlife conservation and forest areas were estimated at 15.5 percent of the area of Ethiopia. Forests and woodlands are highly threatened by deforestation, habitat destruction, expanding invasive species, agricultural expansion, forest fires, and subsequent declines in forest regeneration. Deforestation is significantly pronounced in the highly forested highlands of Oromia. Conversely, parts of Amhara and Tigray have seen total forest area increase, likely as a result of high-investment afforestation programs and watershed rehabilitation programs by organizations supported by USAID²².

Among others, some of the major protected areas in the geographic zones include the Bale Mountains National Park and the Yabelo Wildlife Sanctuary in the Oromia region, the Simien Mountains National Park in the Amhara region and the Kafeto Shiraro National Park in Tigray.

Bale Mountains National Park lies in the Bale zone of the Oromia region. The Bale Mountains are characterized by ancient volcanic rocks with deep gorges worn by rivers, streams, and in some places, waterfalls. The habitats in Bale Mountains national park include the largest tract of Afro-alpine vegetation in continental Africa and the southern limits of the Hareenna forest, the largest intact forest in Ethiopia²³. Over 265 species of avifauna have been identified in the Bale Mountains, including many that are threatened and six that are endemic to Ethiopia (*Vanellus melanocephalus*, *Poicephalus flavifrons*, *Dendropicus abyssinicus*, *Macronyx flavicollis*, *Parophasma galiniera*, and *Serinus nigriceps*). Bale Mountains National Park was originally

²⁰ USAID. [USAID/Ethiopia Tropical Forest and Biodiversity \(FAA 118/119\) Assessment](#). December 2016.

²¹ BirdLife International (2020) Important Bird Areas factsheet: Lake Ashenge

²² USAID. [USAID/Ethiopia Tropical Forest and Biodiversity \(FAA 118/119\) Assessment](#). December 2016.

²³ BirdLife International. *Important Bird Areas factsheet: Bale Mountains National Park*. Retrieved 11/13/2019 from <http://datazone.birdlife.org/site/factsheet/bale-mountains-national-park-iba-ethiopia>

established for the protection of two endemic mammals: *Tragelaphus buxtoni*, an endemic antelope, and *Canus simensis*, or the Ethiopian Wolf. Protection initially allowed these populations to thrive. However, many antelopes were killed out of local resentment towards the park amid the political turmoil of 1991, bringing the population down to just 200 individuals. The Ethiopian Wolf also suffered and continues to be threatened by nearby communities. Species richness in the Harenna Forest increases with altitude. Floral endemism is high in the park, and up to 30% of plants in the Afro-alpine moorland are endemic to the region. The park is also used for grazing domestic animals, and as a result, fire is used to control the growth of woody vegetation and stimulate new growth for grazing.

Yabelo Wildlife Sanctuary is a 2,500 square kilometer protected area and wildlife sanctuary in the Borena Zone of the Oromia Region. The sanctuary is known for its red soils which have little organic matter. The most common native tree species in this area belong to the Acacia, Balanitaceae, Commiphora and Terminalia species. The higher parts of the hills were formerly covered with forest dominated by *Juniperus procera* and *Olea europaea cuspidata*. Endemic species of birds found in this protected area include Stresemann's bushcrow and white-tailed swallow. Yabelo suffers from a great deal of deforestation, and illegal hunting of the spotted cats and ostrich is common.

Simien Mountains National Park is situated on the northern edge of the Ethiopian central plateau in the North Gondar zone of the Amhara Region of Ethiopia. The Park has been declared a World Heritage Site by UNESCO. The Semien Mountains are characterized by quick-flowing streams, rocky areas, and high waterfalls. There is a high proportion of regional and local endemics among the Afro-alpine flora of this region, including 10 species of grass. Throughout the area, crops are cultivated, and domestic animals use the area for grazing, including on the steep slopes. Barley is the only crop grown on the plateau, but cereals typical of the highlands are grown at lower altitudes. Over 137 species are known to occur within the park, including important populations of *Venillus melanocephalus*, *Columba albitorques*, *Thamnolaea semirufa*, and the range-restricted *Myrmecocichla melaena*. In terms of other biodiversity, large herbivores include the endemics *Theropithecus gelada* and *Tragelaphus scriptus meneliki*. The rare Ethiopian Wolf also occurs in Simien Mountains National Park²⁴.

Kafta Sheraro National Park is located in the western region of Tigray. The park borders with Eritrea's Gash-Setit to the north and is traversed by the Tekezé River. Vegetation communities in the park include Acacia-Commiphora, Combretum-Terminalia, dry evergreen montane woodlands and riparian types. The Park is registered as one of the 73 Important Bird Areas in Ethiopia. A total of 167 mammal species, 95 bird species and 9 reptile species have been recorded at the site. The park is home to a transboundary African elephant population of about 100 individuals. Kafta-Sheraro is also an important wintering site for demoiselle cranes²⁵.

OVERVIEW OF THREATS TO BIODIVERSITY AND NATURAL RESOURCES

According to the [2016 USAID/Ethiopia Tropical Forest and Biodiversity \(FAA 118/119\) Assessment](#), the principal threats to Ethiopia's biodiversity stem from 1) *de facto* open access to resources leading to the degradation of habitats; 2) Land conversion from agriculture; 3) Overgrazing by large livestock populations; 4) weak institutional and financial capacity to manage protected areas, and 5) invasive species. By protecting important ecological processes

²⁴ BirdLife International. *Important Bird Areas factsheet: Simien Mountains National Park*. Retrieved 11/13/2019 from <http://datazone.birdlife.org/site/factsheet/simien-mountains-national-park-iba-ethiopia>.

²⁵ Addis Herald. Kafta Sheraro National Park, Ethiopia. <https://www.addis Herald.com/kafta-sheraro-national-park-ethiopia/>. May 2018.

and providing refuge for flora and fauna, Ethiopia's protected area system is important for counteracting the above threats. However, the protected areas system in Ethiopia are increasingly degraded and do not adequately represent Ethiopia's important ecosystems. Many protected areas are improperly sited or too small to properly maintain ecological processes. Furthermore, the biodiversity that some protected areas were established to protect have long been depleted from those areas, making them protected areas only in name²⁶.

Lack of awareness within the general public, policy and decision makers within Ethiopia has impacted on the use and conservation of wetlands within the country. Little information is available for the general public due to limited research work on wetland resources²⁷.

PERSUAP AND PESTICIDES

Desert Locust Outbreak in Ethiopia

Please note that Ethiopia (and the region) is facing one of the most serious Desert Locust outbreaks in decades due to factors of climate, conflict, and weak management. Ongoing conflict and insecurity in the region have resulted in limited management of the juvenile "hopper band" stages of the locust pest cycle. Locusts are considered the most dangerous migratory pest in the world because of the speed in which they travel and volume of crops they can consume.

According to the USAID May 2020 Desert Locust Fact Sheet, current desert locust infestations are largest in Ethiopia in 25 years. As of mid-February 2020, desert locusts had affected at least 581,000 acres of land in Ethiopia. As of May 2020, the desert locust situation has worsened, with swarms in southern Ethiopia maturing and spreading north and east into the country's Afar and Somali regions

According to USAID's May 2020 Emergency Transboundary Outbreak Pests (ETOP) publication, late March rainfall created favorable conditions for further breeding in Ethiopia. It is expected that new swarms will form in late June and July. The formation of new swarms will coincide with the start of the harvest season, causing an unprecedented threat to food security and livelihoods.

FAO led campaign level aerial and ground control operations are in progress in Ethiopia. Weather and ecological conditions remain favorable for swarms and rainfall was above-average in local areas in southwestern Ethiopia where locust swarms were reported.

Partners may only be involved in integrated pest management and technical assistance, but NOT direct pesticide applications. Campaign-level locust control interventions require extensive coordination and specialized equipment and training. Therefore, FFP does NOT provide any approvals for locust pesticide interventions at the smallholder or community level by USAID funded NGO projects.

Partners are asked to refer to FAO's eLocust3 app. ELocust3 is a highly effective data recording and transmission system for crop pest monitoring designed by FAO to help improve early warning and preventive control systems. A link to the eLocust3 good practice factsheet can be found [here](#).

Please refer to the monthly [Emergency Transboundary Outbreak Pests \(ETOP\) bulletins](#) for additional information, as well as the [FAO Desert Locust situation updates](#).

²⁶ USAID. [USAID/Ethiopia Tropical Forest and Biodiversity \(FAA 118/119\) Assessment](#). December 2016.

²⁷ Journal of Natural Sciences Research. A Review on the Importance, Distribution and Threat of Ethiopian Wetlands. DOI: 10.7176/JNSR. 2019

Ethiopia challenges related to pesticides range from damage from diseases or insects for many crops, lack of availability of new technologies for agriculture, the misuse of pesticides, and a shortage of trained professionals in fields related to integrated pest management. High-input agricultural employment has resulted in contamination of pesticides into the environment, negatively impacting water quality and the regulation of ecosystem services. For example, dangerous pesticides are being applied to the spreading flower fields of the Rift Valley with little government oversight²⁸.

Ethiopia has a [Mission-Wide PERSUAP](#) for the Feed the Future Ethiopia Value Chain Activity (FTFE VCA) which expires on 12/31/2022, and is soon to be updated. The Pesticide Registration and Control Proclamation (Proclamation No. 647), 2010 provides for the registration and control of pesticides responsibility to the Ministry of Agriculture and requires registration on the basis of effectiveness, human safety, and non-target organisms and the environment. Proclamation No. 647 further prohibits the importation of dangerous pesticides and obliges all pesticides to display labels indicating compliance with ministry requirements²⁹.

The USAID/Ethiopia FtF Value Chain activity has provided theoretical and practical training to technicians in pesticide safety, selection, and use in partnership with CropLife Africa/Middle East. Using a training curriculum shared with the MoALR, 234 spray service providers (SSPs) were trained to provide professional spraying services to 2,500 smallholder farmers in four regions. This pilot-level initiative has been scaled in 2019. Implementing partners are requested to reach out to the Mission Environmental Officer (MEO), Yitayew Abebe (yabebe@usaid.gov) for further guidance on this topic.

With the support of the FAO, the Ethiopian Government has successfully built their capacity to report and respond to pest occurrences through the establishment of community-based monitoring and early warning systems. The FAO has supplemented this system by providing 203 mobile kits to community forecasters trained in the use of the FAO's Fall armyworm (FAW) monitoring early warning system (FAMESWA), which has benefited approximately 300 communities and strengthened reporting capacity and early management of Fall armyworm³⁰. According to the ETOP, several species of natural enemies of FAW have been identified in Ethiopia and are being further studied to determine their efficacy, environmental impacts and safety. Some are being tested along-side other agro-ecological tools, e.g., push-pull technology, to develop effective, affordable, accessible, adaptable and sustainable means of managing the pest.

According to the 2015 [USAID report on Climate Variability and Change in Ethiopia](#), increased temperatures and changing rainfall patterns are likely to change the timing and distribution of agricultural pests (including locusts swarms), contributing to plant stress and reducing yields. This challenge will require a more aggressive adoption of integrated pest management practices, the introduction of new inputs to counter virulent challenges, and overall changes to crop and livestock management. While there is yet to be a comprehensive study detailing the intricacies of crop-pest-climate relationships in Ethiopia, available evidence suggests that climate change could change migration patterns of vector species, lengthen their breeding season of expand their altitudinal range, create potential new ecological niches that would allow

²⁸ USAID. [USAID/Ethiopia Tropical Forest and Biodiversity \(FAA 118/119\) Assessment](#). December 2016.

²⁹ USAID. [USAID/Ethiopia Tropical Forest and Biodiversity \(FAA 118/119\) Assessment](#). December 2016.

³⁰ Food and Agriculture Organization of the United Nations. ["Ethiopia and FAO: Partnering to Achieve sustainable Agricultural Growth, Food, and Nutrition Security."](#) FAO, February 2019.

for the spread of pests and diseases to new geographical areas, and changing application and use rates for pesticides³¹.

INVASIVE SPECIES

Non-native species are rapidly expanding throughout Ethiopia's farmlands, rangelands, and aquatic ecosystems, reducing biodiversity and causing reductions in crop, fish, and forage yields. Invasive species displace indigenous species and disrupt natural ecosystems. While the impact of invasive species in Ethiopia has not been well documented, it is clear that they pose a threat to food security, livelihoods, and human and animal health.

BHA projects are specifically prohibited from using USAID support for the promotion of any invasive species. Non-native species have rapidly expanded their range in Ethiopia, with lasting consequences for the country's biodiversity and ecosystem health. According to Ethiopia's [National Biodiversity Strategy and Action Plan \(2015-2020\)](#), major invasive species present in Ethiopia include³²:

- *Prosopis juliflora* (Mesquite): Mesquite trees have overtaken large tracts of Ethiopian rangeland, notably in the Afar and Somali regions. This has had the effect of reducing overall biodiversity in these areas, reducing the carrying capacity of rangelands, and increasing the incidence of crop pests and health problems for domestic and wild animals.
- *Parthenium hysterophorus* (Parthenium weed): Parthenium is common throughout Afar, Somali, Oromia, Amhara, and Gambella regions where it can be found in range-and farmlands. The rapid expansion of Parthenium has resulted in sorghum losses between 46% and 97% and a social cost estimated at USD\$4,365,000 in 2012.
- *Eichornia crassipes* (Water hyacinth): Water hyacinth reproduces quickly, obstructs irrigation, and reduces the productivity of aquatic ecosystems. Water hyacinth has resulted in water flow restriction in Ethiopia ranging between 393,000 and 2,945,000m² of water.
- *Dactylopus coccus costa* (Carmine cochineal): An insect introduced to Ethiopia for cochineal dye production in 2001, the carmine cochineal is now inflicting significant damage to local cactus varieties in Tigray region.

Specific invasive species in the Zones of Influence could not be identified.

WATER RESOURCES

According to [USAID's Water and Sanitation Factsheet for Ethiopia, Ethiopia](#) it is considered 'water stressed' despite having relatively abundant water resources. This is largely due to rapid population growth over the last decade. Estimates of renewable annual groundwater per year range from 13.5 to 28 billion m³, of which only about 2.6 billion m³ are currently exploitable. Natural variability in rainfall patterns and distribution, punctuated by extreme climatic events, has thrust many regions of the country into conditions of extreme water scarcity, degraded water quality and chronic food insecurity. At the other extreme, flooding is a significant problem the eastern parts of the BHA geography regions. Compounding the unpredictable nature of the country's rainfall is the shortage of existing water related infrastructure.

³¹ USAID. *Climate Variability and Change in Ethiopia: Summary of Findings*. December 2015.

³² Republic of Ethiopia. *Ethiopia's National Biodiversity Strategy and Action Plan 2015-2020*. Ethiopian Biodiversity Institute, Addis Ababa, 2015.

Ethiopia is divided into 12 basins, eight of which are river basins and one of which is a lake basin. The remaining three are dry and without stream flow. Most of these basins extend from the country's central plateau and are drained by rivers originating from the highlands. The northwestern portion of the highlands covers the Tigray and Amhara regions while the southeastern portion of Ethiopia's highlands is in the Oromia region. Ethiopia has a massive surface water potential of 124.4 billion cubic meters, but 97% of estimated annual stream flows out of Ethiopia into neighboring countries because most of the rivers are transboundary. Ethiopia's rivers originating in the western highlands (Abbay, Baro-Akobo, Mereb, and Tekeze basins in the Amhara and Tigray regions) flow to the west and join the Nile, contributing about 85% of its total volume. Rivers originating in the Eastern highlands flow eastwards while two other sections with basins along the Great Rift Valley in the Oromia region flow to the south and north.

The Awash River Basin in the Amhara, Oromia, Somali and Afar regions covers 10% of Ethiopia's land mass and 4% of surface flow and is Ethiopia's most highly utilized basin³³. Additionally, Ethiopia's lake, wetland, and flood plains systems store a great deal of water. See Figure 1 for an overview of water resources in the BHA Zones of Influence.

OTHER KEY STAKEHOLDERS

Global Environment Facility (GEF) Agencies working in Ethiopia³⁴ include the United Nations Development Programme (UNDP), The World Bank, United Nations Industrial Development Organization (UNIDO), GEF Secretariat, United Nations Environment Programme (UNEP), the International Fund for Agricultural Development (IFAD), the African Development Bank (AfDB), and the Food and Agriculture Organization of the UN (FAO).

The GEF currently has 82 projects in Ethiopia with GEF grant funding of \$659.92 million and an additional co-financing amount of \$6,327.80 million.

Current ongoing World Bank³⁵ projects in BHA zones of influence include:

Project	Budget	Dates	Location	Objective
Rural Productive Safety Net Project for Ethiopia	\$1,856.00 million	September 14, 2017-December 31, 2020	Various	Support the Government of Ethiopia in improving the effectiveness and scalability of its rural safety net system.

³³ Berhanu, Belette; Seleshi, Yilma; and Assefa M. Melesse. "Surface Water and Groundwater Resources of Ethiopia: Potentials and Challenges of Water Resources Development" in A.M. Melesse et al (eds), *Nile River Basin*, Springer International Publishing, Switzerland, February 2014.

³⁴ "Ethiopia." *Global Environment Facility*. Retrieved 6 November from: <http://www.thegef.org/country/ethiopia>.

³⁵ "Projects in Ethiopia." *The World Bank*, retrieved 7 November 2019 from https://projects.worldbank.org/en/projects-operations/projects-summary?lang=en&searchTerm=&countrycode_exact=ET.

ENREP Additional Financing	\$248.00 million	May 27, 2016 – N/A	Tigray, Somali	Improve reliability of the electricity network and increase access to electricity services in Ethiopia.
Second Ethiopia Urban Water Supply and Sanitation Project	\$445 million	March 31, 2017 – July 7, 2023	Tigray, Somali	Increase access to enhanced water supply and sanitation services in an operationally efficient manner in Addis Ababa and Secondary Cities.
Ethiopia Transport Systems Improvement Project	\$300 million	June 3, 2016 – December 31, 2023	West Arsi, Somali, Amhara	Improve mobility along selected corridors in Addis Ababa and the effectiveness of road safety compliance systems throughout Ethiopia.
Ethiopia Resilient Landscapes and Livelihoods Project	\$100 million	July 30, 2018 – July 7, 2024	Tigray, Dire Dawa	Improve climate resilience, land productivity and carbon storage, and increase access to diversified livelihood activities in selected rural watersheds.

According to the Ethiopia Tropical Forest and Biodiversity (FAA 118/119) Assessment³⁶, key international institutions in Ethiopia include the Horn Regional Environmental Network, the European Union, Swedish Development Assistance, Canadian Development Assistance; the Japanese International Cooperation Agency; the Germany Agency for Technical Development; and the United Nations Development Program—Global Environment Facility (UNDP-GEF).

Key national environmental government agencies include: the Ministry of Environment, Forest, and Climate Change (MEFCC), the Ethiopian Biodiversity Institute (EBI), and the Ethiopian Wildlife Conservation Authority (EWCA).

Key national environmental NGOs include: Ethio-Wetland and Natural Resources association, FARM Africa, SOS Sahel, the Ethiopian Forest Coffee Forum, the Forum for Environment, MELCA-Ethiopia, the Frankfurt Zoological Society, the Ethiopian Wolf Conservation Programme (BornFree Foundation), ENDA Ethiopia, CARE Ethiopia, World Vision Ethiopia.

For a full description of these organizations please refer to Section 2 of the USAID Ethiopia Tropical Forest and Biodiversity (FAA 118/119) Assessment.

2.2 APPLICABLE AND APPROPRIATE PARTNER COUNTRY AND OTHER INTERNATIONAL STANDARDS (E.G. WHO), ENVIRONMENTAL AND SOCIAL LAWS, POLICIES, AND REGULATIONS

SUB-SAHARAN AFRICA EIA PROCEDURES

³⁶ USAID. *USAID/Ethiopia Tropical Forest and Biodiversity (FAA 118/119) Assessment*. December 2016.

According to the Legal and Regulatory Framework Study of the World Bank, environmental impact assessment (EIA), is a “process and a tool to identify the likely consequences a particular project would have on the biophysical environment and on human health and welfare and to convey this information to those responsible for sanctioning project proposals at a stage when it can materially affect decisions about future project implementation. In recent years, significant strides have been made to build a legal foundation for EIAs in Sub-Saharan Africa. Whereas EIAs typically used to be carried out only to meet requirements of foreign donors, they are now mandated in twenty-four Sub-Saharan countries, as an important element of domestic environmental law and policy. IPs for Ethiopia are expected to understand and document their compliance with local EIA regulations in their Supplemental IEEs.

REGULATORY STRUCTURE

The principal framework for environmental management and impact assessment in Ethiopia is established by the [Environmental Protection Agency Act, 1992](#), and it is supplemented by other laws and proclamations, notably the [Environmental Impact Assessment Guideline, 2000](#), and the [Environmental Impact Assessment Proclamation, Proclamation No. 299/2002](#). Under Article 51 of the Ethiopia Constitution, Ethiopia may delegate certain powers and functions to its regions, and regional governments presumably exercise the right to enact environmental laws. While Ethiopia’s environmental laws have tended to focus primarily on resource utilization but have evolved over time to include governance of pollution and radiation, as well as regulation such as EIAs³⁷.

The creation of the Ministry of Environment, Forest, and Climate Change (MEFCC) in 2013 transferred powers and duties related to forestry issues from the Ministry of Agriculture and Natural Resources and replaced the previous Environmental Protection Authority. MEFCC added responsibilities and mandates in issues related to the Environmental and Climate Change and Forestry sectors. Oromia and Amhara are the first regions to establish Forest Enterprises Supervising Agencies to oversee the development

The semi-autonomous Ethiopian Wildlife Conservation Authority (EWCA) under the Ministry of Culture and Tourism is charged with the conservation and sustainable utilization of Ethiopia’s wildlife in collaboration with foreign and domestic stakeholders. EWCA has been charged by the GoE and the United Nations Development Programme (UNDP) with implementing the “Sustainable Development of the Protected Areas of Ethiopia” project.

Ethiopia’s national Policy on Biodiversity Conservation and Development posits that biodiversity conservation is a prerequisite of socioeconomic development and sustainable environmental management. The Ethiopian Biodiversity Institute is charged with the conservation and utilization of biodiversity in Ethiopia, as well as implement international conventions of which Ethiopia is part and undertake any necessary preparatory studies preceding new or existing international conventions.

[The Development Conservation and Utilization of Wildlife Proclamation, Proclamation No. 541/2007](#) grants the power of wildlife administration in both federal and regional governments, recognizing the importance of local community and private investor participation in the development, conservation, and utilization of wildlife. Additionally, it recognizes the need for laws to conform to Ethiopia’s federal arrangement (regional power) and to utilize wildlife for economic development. However, the Wildlife Development and Conservation Authority

³⁷ USAID. [USAID/Ethiopia Tropical Forest and Biodiversity \(FAA 118/119\) Assessment](#). December 2016.

Establishment Proclamation No 575/2008 is solely economic in that it states that conservation of wildlife will be done for the economic benefits it provides, leaving open the possibility of eliminating wildlife if it will yield economic benefits.

Ethiopia does not have a comprehensive country-wide land use plan, leading to tensions over land use decisions between Ethiopia's regions. Certification and registration of rural lands began in 1998, led by the regions. Regional-level land use plans allow for the issuance of land use plans, and laws such as the Oromia Land Law could provide a model for other regions³⁸.

Additionally, Ethiopia is a signatory to numerous international conventions related to environmental protection. These include the United Nations Framework Convention on Climate Change (UNFCCC), the United Nations Convention to Combat Desertification (UNCCD), the United Nations Convention on Biological Diversity (CBD), and the Convention on International Trade in Endangered Species (CITES). Furthermore, Ethiopia became a member of the Pan-African Agency for the Great Green Wall Project in 2014³⁹.

More detailed information can be found in the [2016 USAID/Ethiopia Tropical Forest and Biodiversity \(FAA 118/119 Assessment\)](#).

The [Productive Safety Net Project \(PSNP\) Phase IV](#) is a program created by the Government of Ethiopia to alleviate food insecurity in rural, poverty-stricken, drought-prone regions of the country. Through the four iterations of the program, the PSNP is designed to support the transition to a system of integrated social protection by targeting, monitoring and building the capacity of the protection and DRM systems, as well as provide safety net transfers to targeted rural households. PSNP IV specifically targets chronically food insecure, vulnerable households in Ethiopia. This policy keeps in mind the potential environmental sensitivities restraining economic growth and food security in the country.

In June 2015, Ethiopia submitted its [Intended Nationally Determined Contribution \(INDC\)](#) to the UNFCCC.

³⁸ USAID. [USAID/Ethiopia Tropical Forest and Biodiversity \(FAA 118/119 Assessment\)](#). December 2016.

³⁹ USAID. [USAID/Ethiopia Tropical Forest and Biodiversity \(FAA 118/119 Assessment\)](#). December 2016.

3.0 ANALYSIS OF POTENTIAL ENVIRONMENTAL RISK

This section only includes analysis for the one common activity of fumigation, (given that most BHA activities will use commodity fumigation to prevent the loss of food commodities), as well as the anticipated climate risks to fumigation activities. While the impacts of commodity fumigation are well-understood across the BHA landscape, the environmental impacts and climate risks of other BHA activities will depend on the specific context in which activities are implemented. Further, BHA activities are typically undefined at the RFA level, which makes the evaluation of potential environmental impacts and climate risks difficult. Therefore, analyses of the environmental impacts and climate risks of non-fumigation activities need to be undertaken in the Supplemental IEE.

3.1 ENVIRONMENTAL IMPACTS OF COMMODITY FUMIGATION

Most BHA activities will carry out the storage and protection of commodities, either as US in-kind food assistance or as locally-procured food commodities. To prevent the loss of food commodity from pest infestations during storage, it is common practice to perform periodic fumigation of warehouses and/or the application of contact pesticides to warehouse surfaces.

As mentioned in the [Fumigation PEA](#), impacts of commodity fumigation must be considered, including:

- Use of the fumigant aluminum phosphide, and to a lesser extent magnesium phosphide, can potentially affect the health of applicators and other on-site workers and visitors.
- Use of the fumigant phosphine gas can affect the health of residents near warehouses being fumigated.
- Fumigation residuals could affect water quality, soil, and non-target organisms.
- Poor practices in transport, storage, application, and disposal of fumigants are a concern for human health.
- Improper disposal practices of rodents and birds killed by phosphine gas could affect human health.
- Phosphine may not completely control fungal contamination.

In addition, it is a USAID agency commitment that activities consider the procurement or promotion of pesticides as a last resort within an Integrated Pest Management (IPM) framework (see [USAID Special Topic Presentation on Pesticides](#)). Whichever their intended use may be, pesticides are potent killing agents and their use poses intrinsic dangers to applicators, households, communities and the environment. These risks include, but are not limited to:

- Use of chemical, non-organic compound-based, and biological or botanical-based pesticides can potentially affect the health of applicators, on-site workers and visitors.
- Poor practices in the transport, storage, application, and disposal of pesticides and pesticide containers are a concern for human and environmental health.
- Pesticides can negatively affect and/or eliminate non-target organisms in the environment, (i.e. predatory insects and pollinators, microorganisms beneficial to soil health, aquatic organisms, etc.) thereby altering ecological food webs and potentially causing detriment to agricultural production systems.
- Chemical pesticides can contaminate surface and groundwater water, soils, and can bioaccumulate in surrounding ecosystems and organisms, posing a concern for health.
- Misuse or overuse of pesticides can result in pesticide-resistance.

TABLE 2: POTENTIAL ENVIRONMENTAL IMPACTS, AND CLIMATE RISKS, OF COMMODITY FUMIGATION

Commodity Fumigation	Potential environmental and social impacts	Potential climate risks
Warehouse treatment of bagged and bulk commodity	<ul style="list-style-type: none"> ● Negative health impacts to applicators and on-site workers and visitors (including transporters) ● Negative health impacts of residents near fumigation sites ● Negative impacts to water quality, soil and non-target organisms if fumigant disperses from the site ● Negative health impacts due to poor solid waste management (such as improper disposal of dead birds and rodents killed by fumigants) of fumigation residues/byproducts ● Need for ancillary treatment of fungal diseases as Phosphine may not be effective in control of fungal contamination 	<ul style="list-style-type: none"> ● Certified applicators unwilling to use personal protective equipment due to increased temperatures. ● Increased temperatures and changes in rainfall patterns, changes occurrence of pests and pathogens and therefore fumigation requirements. ● Warehouses where commodities are stored are in locations threatened by extreme weather, or in flood zones.

3.2 CLIMATE RISKS TO COMMODITY FUMIGATION

As noted in Section 2, Ethiopia will experience increasing temperatures. Droughts have become more frequent, especially in the northern areas. Due to model uncertainties, it is not possible to get a clear picture for precipitation change for Ethiopia under a future climate. However, it is clear that the future will increase climate variability and extreme events. The climate changes expected in Ethiopia could impact fumigation by changing herbivore and pathogen range and occurrence, which should also be considered during fumigation, and threatening the effectiveness of fumigation storage effectiveness.

3.3 OTHER BHA PROGRAM AREAS AND ELEMENTS

This RFA IEE cannot determine the reasonably foreseeable potential environmental impacts and climate risks of interventions within the BHA Activities and Sectors described in Section 1.3, as the scope and technical approach of these interventions have not yet been defined. These interventions will be refined and analyzed in Supplemental IEEs.

*Please note: Environmental Determinations and Climate Risk COVID-19-impacted activities and COVID-19 response activities are found in Annex A.

4.0 ENVIRONMENTAL DETERMINATIONS

4.1 RECOMMENDED ENVIRONMENTAL DETERMINATIONS

A **Positive Determination**, pursuant to 22 CFR 216.3(b)(1)(ii), is recommended for all commodity fumigation activities that use a restricted use pesticide, as registered by the USEPA. Please see additional information in Section 5 under Condition 6b.

A **Deferral** is recommended for all other activity interventions that are not yet well defined in scope or technical approach pursuant to 22 CFR 216.3(a)(7)(iv). The **Deferral** for these interventions, or BHA activities, must be resolved in the post-award Supplemental IEE, in which each intervention will be assigned a threshold determination: **Categorical Exclusion, Negative Determination with Conditions** or **Positive Determination**.

4.2 CLIMATE RISK MANAGEMENT

The recommended climate risk rating for commodity fumigation is based on the anticipated likelihood and severity of climate risk, per 201mal. Low, moderate and high risk ratings were identified based on likely climate risks to commodity fumigation.

The following table summarizes the recommended determinations and climate risk ratings based on the environmental analysis conducted. Upon approval, these determinations become affirmed, per 22 CFR 216.

4.3 ENVIRONMENTAL THRESHOLD DETERMINATIONS AND CLIMATE RISK RATINGS

TABLE 3: ENVIRONMENTAL DETERMINATIONS AND CLIMATE RISK RATINGS

Illustrative Interventions	22 CFR 216 Environmental Determination	Climate Risk Rating
Commodity Fumigation	Positive Determination	Low, moderate, and high (see Annex 6)
Other BHA Activities	Deferral	Postponed Assessment, Rating to be assessed along with Supplemental IEE analysis

4.4 CLIMATE RISK MANAGEMENT SUMMARY NARRATIVE

This climate risk management screening is conducted at the global level for BHA as part of the pre-award CRM process. The intention is to capture the climate risks that could affect activities anticipated under BHA awards. Given that the specific geographies (e.g., country, region, and coastal proximity), climate conditions, adaptive capacity, and other key characteristics that can shape risk are not yet defined at this level of analysis, the screening focuses on risks that can be broadly applied for a specific type of activity -- in this case, fumigation. Post-award, the partner will complete full screening once activity and geography details are defined. CRM must be provided for all activities, regardless of activity type. A critical resource used in identifying

and assessing the climate risks was [USAID's Climate Risk Screening and Management Tool for Strategy Design + Annexes](#).

TABLE 4: Climate Risk Management Summary Table

DEFINED OR ANTICIPATED PROGRAM INTERVENTION	TIMEFRAME	GEOGRAPHY	CLIMATE RISKS	RISK RATING	CLIMATE RISK MANAGEMENT OPTIONS	HOW ARE RISKS ADDRESSED	OPPORTUNITIES TO STRENGTHEN CLIMATE RESILIENCE
Commodity Fumigation	Life of the award, until 2023.	Areas where commodity fumigation will occur. Likely country-wide.	Certified applicators unwilling to use personal protective equipment due to increased temperatures.	Low	Educate applicators on importance of wearing protective equipment	Educate applicators on importance of wearing protective equipment	Ensure that applicant training includes information on climate risks and emphasizes the importance of protective equipment
			Increased temperatures and changes in rainfall patterns, changes occurrence of pests and pathogens and therefore fumigation requirements.	Medium	<p>Conduct review of relevant literature on how pests and pathogens will change in the area due to climate change and evaluate how that might impact commodity storage and fumigation.</p> <p>Ask local community members about observed changes in pathogen and pests over recent years, and use fumigation that is relevant for the current situation.</p>	<p>Conduct review of relevant literature on how pests and pathogens will change in the area due to climate change and evaluate how that might impact commodity storage and fumigation.</p> <p>Ask local community members about observed changes in pathogen and pests over recent years and use fumigation that is relevant for the current situation.</p>	<p>Consult relevant literature and local communities frequently throughout the life of project to understand how pests and pathogens could change due to climate change impacts and how that might impact commodity storage and fumigation.</p> <p>Consider climate change impacts when planning inspection times to ensure that any new pest species or increasing occurrences of pest infestations are identified as early as possible.</p>

			Warehouses where commodities are stored are in locations threatened by extreme weather, or in flood zones.	High	<p>During site selection evaluate if storage facilities are in areas that are exposed to extreme weather or regular flooding.</p> <p>Ensure that all pesticides stored in warehouses (as non-fumigants may also be stored in warehouses) are in locations safe from the impacts of extreme weather events (i.e., on raised platforms in the case of flood risk).</p>	<p>During site selection evaluate if storage facilities are in areas that are exposed to extreme weather or regular flooding.</p> <p>Ensure that all pesticides stored in warehouses (as non-fumigants may also be stored in warehouses) are in locations safe from the impacts of extreme weather events (i.e., on raised platforms in the case of flood risk).</p>	<p>During site selection evaluate if storage facilities are in areas that are exposed to extreme weather or regular flooding.</p> <p>Improve early warning of climate and weather events, such as rainfall or flood, to improve preventative protection of commodities and stored pesticides</p>
--	--	--	--	------	--	--	--

5.0 CONDITIONS AND MITIGATION MEASURES

5.1 CONDITIONS

For applicants, USAID BHA environmental compliance at the time of activity design will be met through adherence to both 1) this RFA IEE and 2) completion of a stand-alone, Supplemental IEE, only upon USAID's indication of an intent to award. Once the Supplemental IEE, including the Environmental Mitigation and Monitoring Plan (EMMP), CRM screening, and IAP (including attendant budget), is finalized and approved by the BHA, the IEE is to be used to guide activity implementation. All mitigation measures contained in the Supplemental IEE must be implemented and monitored for effectiveness in reducing potential environmental impacts resulting from interventions.

The following 8 conditions (explained in more detail in the sections that follow) describe awardees' environmental compliance, mitigation, monitoring and evaluation responsibilities throughout the life of award (LOA). Figure 2 below provides a visual schematic of the requirements over LOA.

- [Condition 1](#): Applicant to submit Environmental Safeguards Plan.
- [Condition 2](#): Awardee to develop Supplemental IEE for Mission and Washington clearance⁴⁰.
- [Condition 3](#): Implement environmental monitoring requirements. This includes development and alignment of Environmental Mitigation and Monitoring Plan (EMMP) and Climate Risk Management (CRM) with performance M&E systems.
- [Condition 4](#): Report on USAID environmental compliance. All activities are required to submit Environmental Status Reports (ESRs⁴¹) annually before the Pipeline Resource Estimate Proposal (PREP). Additional reporting is reflected in the Annual Results Report (ARR).
- [Condition 5](#): Develop an Environmental Assessment for any actions with potential for significant impact to ecological habitats, as determined by USAID.
- [Condition 6](#): Plan for a Pesticide Evaluation Report and Safe Use Action Plan (PERSUAP), which includes for pesticide procurement and/or use (e.g. agriculture, livestock, public health, construction), and/or commodity fumigation mitigation requirements.
- [Condition 7](#): Support the Mission in the development of any Best Practice Review (BPR) for environmental safeguarding.
- [Condition 8](#): Ensure compliance with partner country environmental regulations, including PSNP ESMF.

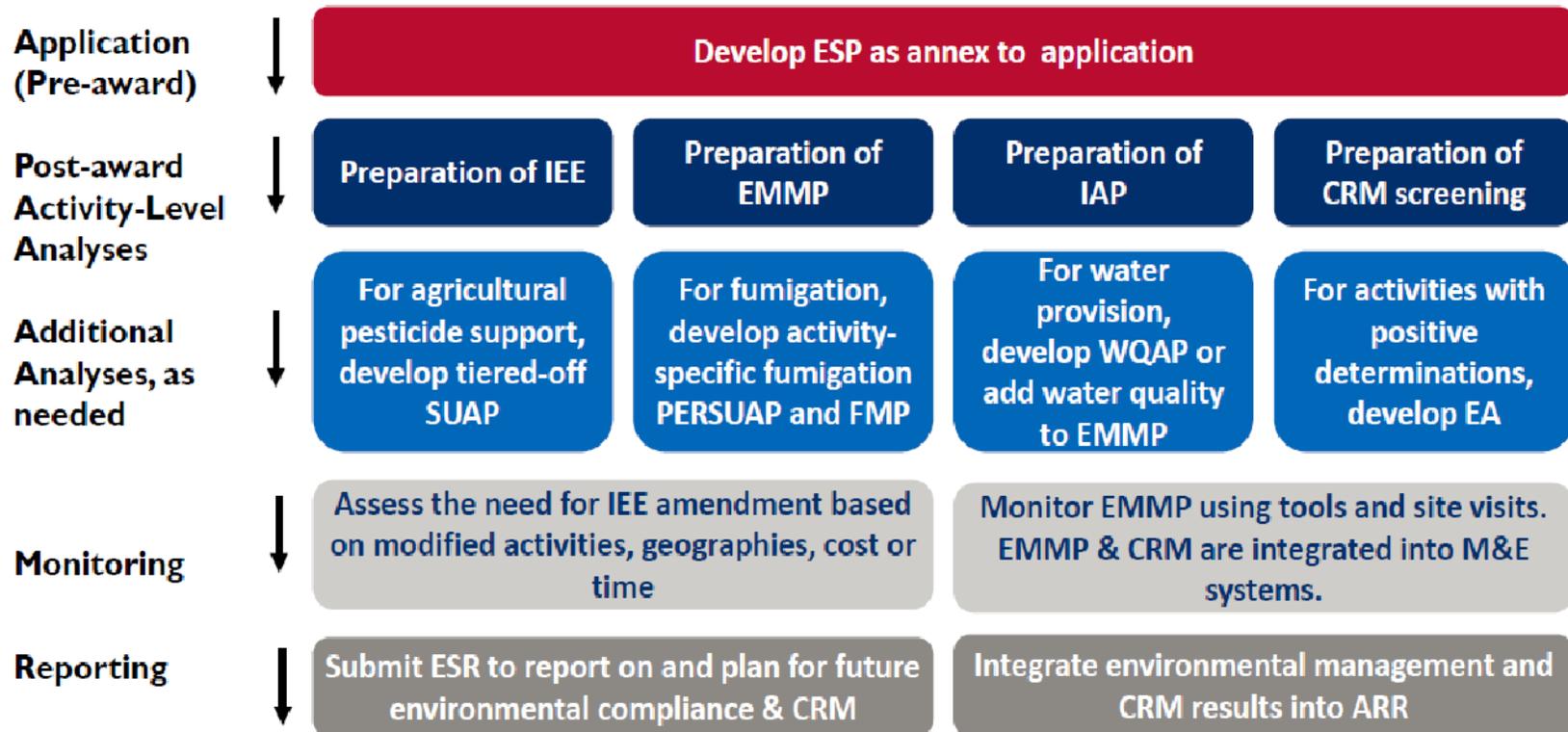
The environmental determinations in this IEE are contingent upon these general implementation and monitoring requirements, as well as [ADS 204](#) and other relevant requirements.

*Please note: Guidance and requirements for all COVID-19-impacted activities and COVID-19 response activities are found in Annexes A-D.

⁴⁰ The Supplemental IEE is subsidiary analysis to the RFA-IEE, and may also be referred to as the "Activity IEE".

⁴¹ The ESR is similar to the Environmental Mitigation and Monitoring Report (EMMR) used elsewhere in USAID. However, the ESR meets purposes of annual reporting and budget planning for environmental compliance.

Figure 2. Overarching Environmental Compliance Flowchart for FFP Activities



5.1.1 PRE-AWARD STAGE

CONDITION 1: APPLICANT TO SUBMIT ENVIRONMENTAL SAFEGUARDS PLAN

USAID requires analyses which consider environmental risks across the Agency, using a set of defined procedures to meet USAID environmental requirements. Applicants are expected to design innovative approaches to promote environmental and climate risk management to improve and sustain food and nutrition security of vulnerable populations, as articulated in both SO1 and SO2 of the [USAID 2016-2025 Food Assistance and Food Security Strategy](#). Applicants must summarize these environmental approaches into a four-page Environmental Safeguards Plan.

This plan must summarize:

1. How strategies to reduce both environmental impacts of the activity and climate risks to the activity have been integrated into activity design;
2. How funds for environmental and climate risk management have been allocated in the detailed/comprehensive budgets and described in the budget narrative;
3. How staffing for oversight of environmental compliance requirements will be carried out over the life of the activity; and
4. How outcomes of the EMMP will inform performance as monitored through the Logical Framework and Indicator Performance Tracking Tables (IPTT) in M&E systems.

5.1.2 POST-AWARD STAGE

CONDITION 2: AWARDEE TO DEVELOP SUPPLEMENTAL IEE FOR MISSION AND WASHINGTON CLEARANCE

IEE Development

Upon receipt of the BHA award, implementing partners will be required to develop a Supplemental IEE⁴², specific to the award. The Supplemental IEE will describe the environmental impact analysis for all interventions in the project's zone of influence, within the BHA geographies described in the RFA . In short, the Supplemental IEE must 1) summarize the technical design, 2) describe baseline environmental conditions in the BHA zones of influence 3) identify all reasonably foreseeable environmental impacts of interventions, and 4) recommend sound mitigation measures to prevent, reduce or compensate for environmental impacts.

Partners must provide sufficient site-specific information in the S-IEE in order to understand the specific baseline environmental conditions. The inclusion of maps, photos, and geographic coordinates is highly recommended. Further, partners must consider the cumulative impacts of activities occurring in their zones of influence, which can ultimately rise to a Positive Determination, requiring an Environmental Assessment. For example, cumulative impacts could include over-withdrawal of water for irrigation and/or water point provision or increases in pollutant concentrations in a water body or in the soil or sediments.

⁴² A word version of the Supplemental IEE template can be found at a Google drive here: <https://drive.google.com/drive/u/1/folders/1CwBSuhORG54Ehe94KbpdecilwO52zGS8>

In order for IEEs to include sufficient level of detail to describe to USAID the potential level of environmental risk, the IEE must include sufficient information about the scope, scale, and locations of anticipated activities. As always, if the partner does not have sufficient information to inform environmental and climate risk analysis at this stage, then the PVO must request Deferral, per [22 CFR 216.3.\(1\)\(iii\)](#)

IEE Transition and Timing

Given USAID's commitment to immediate start-up of PSNP activities prior to completion of the R&I year, partners with prior DFSAs in Ethiopia can follow their existing IEEs for core PSNP activities. A new project-specific IEE must be submitted at the end of R&I for both PSNP and DFSA-specific activities. For partners with no prior experience with DFSA, an IEE must be submitted to cover core PSNP activities prior to implementation. An IEE Amendment must be submitted at the end of R&I to add DFSA-specific activities.

The Co-Creation Workshop will provide additional guidance on IEE requirements, including the potential for conducting Environmental Assessments during the R&I period.

IEE Amendments

In the event that any new proposed interventions differ substantially from the type and/or agro ecological zone of interventions described in the Supplemental IEE, an IEE Amendment (IEE-A) will be developed, including a revised EMMP (and potentially revised IAP and CRM screening, as needed). Amendments must be sent to BHA and reviewed for approval by the BHA/BEO prior to implementation.

Some of the possible triggers for an IEE-A include, but are not limited to: modified or new interventions, new geographic zone, cost extension, and/or significant time extension, such as an additional year. Pursuant to 22 CFR 216.2(b), activities involving international disaster assistance or other emergency circumstances may be Exempt from these procedures. Emergency activities with Agreement Officer approval may be Exempt from environmental review, such as the transfer of food commodities pursuant to 22 CFR 211.

It is important to note, EMMP modifications do not require an IEE amendment or USAID approval. However, all EMMP changes and their rationale, should be reported in subsequent ESRs. EMMP revisions during the course of implementation, such as fine-tuning mitigation measures or including additional analysis for unexpected impacts, are encouraged as part of any activity's sound adaptive environmental management.

Sharing Relevant Documentation. Partners are encouraged to share with the BEO (via AORs) any documents developed during the pre-award and R&I period that could support the BEO's review and understanding of the environmental and climate risks associated with anticipated project activities (i.e., gender analyses, feasibility studies, etc.). Documentation sharing will help avoid undue burden and duplication of information by partners throughout the environmental compliance documentation review and clearance process.

New BEO/BHA Guidance Prohibiting Use of Environmental Review Forms (ERF)*

Background: Since 2017, the BEO/BHA (prior: DCHA) has permitted PVOs to use the USAID Africa Bureau Environmental Review Form (ERF) process, which various PVOs have written into their FFP Supplemental IEEs, under the RFA IEE. The reason for the use of the ERF has been rooted in a lack of activity and site-specific information at the time of drafting the Activity-level or Supplemental IEE.

Change: However, as a result of multi-year analysis, the BEO/BHA has determined that ERFs will no longer be accepted within Supplemental IEE (i.e., at the Activity level) in BHA (prior: FFP) projects. The rationale for this change is 1) potential for delegation of BEO authority, 2) too many ERFs/lack of efficiency, 3) generic nature of the ERF/lack of specificity to the BHA program cycle, and 4) the outdated nature of the template (i.e., from 2010 and missing Climate Risk Management).

In addition, individual ERFs miss the opportunity to address cumulative environmental impacts of infrastructure, for example, which could rise to a higher risk level. The use of ERFs by PVOs has resulted in delays, without sufficient added value. In fact, in some unusual cases, FFP-funded PVOs have even faulted USAID for ERF-related delays, without sufficiently accepting their own role in the process.

Systems in Place: Fortunately, BHA already has a robust climate risk and environmental safeguarding system under the direction of the BEO, with MEO field leadership. All of the environmental safeguarding work is well-integrated with climate risk considerations, at both the design and implementation phases. Climate Risk Profiles specific to BHA sub-national geographies are developed at the design stage, which include key environmental vulnerabilities. For clarity of the linear process for compliance, a RFA-level IEE described the requirement of an activity level IEE and CRM developed by the partners.

Ongoing implementation is monitored both with a Climate and Environment Checklist in the ARR guidance, and with annual ESRs with the PREPs. In addition, the BEO coordinates with BHA technical experts who provide input on environmentally sensitive components of WASH, engineering, nutrition, NRM, agriculture, youth/gender dynamics, etc. in BHA to set programs up for success.

**Under special circumstances and in consultation with the AOR, MEO and BEO, ERFs, or similar can be allowed if process changes address the issues identified above.*

Resources. There are important resources that partners can consult when developing Supplemental IEEs:

- For guidance on Environmental Impact Assessment (EIA), consult [USAID's EIA Tool](#).
- For a general introduction on how to develop an IEE, consult the [USAID IEE Assistant](#)⁴³.
- Partners are advised to consult previous Supplemental IEEs to research common environmental concerns and solutions among BHA activities globally. Partners can utilize the [USAID Environmental Compliance Database](#) to search for USAID-approved IEEs.
- For technical guidance on environmentally sound design and management for USAID development activities, consult the [USAID Sector Environmental Guidelines](#).

EMMP Development

⁴³ Provides useful overall process information, but templates are out of date and should not be used.

As a component of the Supplemental IEE, BHA applicants must complete an EMMP which serves as the implementation and monitoring plan for all required 22 CFR 216 compliance actions to be taken by a given activity. This RFA IEE provides a template for the EMMP in the annexes. Detailed guidance and best-practice considerations for the development of the EMMP is available on the [USAID Environmental Procedures Website](#). The effectiveness of the individual compliance mitigation measures to prevent or reduce environmental impacts must be monitored periodically throughout the life of the activity. The results of this monitoring should be described in the annual ESR. See information below.

CRM Screening

As a component of the Supplemental IEE, upon receipt of the award, the partners will develop a Climate Risk Management (CRM) screening for all activities. CRM is the process of assessing, addressing, and adaptively managing climate risks that may impact the ability of USAID programs to achieve their objectives. It is recommended that Climate Risk Management screening begin with the Supplemental IEEs under this RFA, with the exception of fumigation activities (See Annexes 5 & 6 for more details). Currently, the activity interventions for this RFA are not well defined in scope or technical approach, and therefore it is appropriate to begin Climate Risk Management screening when they are better defined, at the Supplemental IEE stage, pursuant to [Climate Risk Management for Projects and Activities. A Mandatory Reference for ADS 201](#). It is likely that many of these interventions will have **high and moderate climate risks** during implementation. When high and moderate climate risks are identified, Climate Risk Management screening for these activities must be resolved in the post-award Supplemental IEE, in which climate risks, and opportunities to integrate climate into programming, will be identified and addressed as outlined by [USAID policy](#) and BHA Climate Risk Management guidance (found in Annex 5 and also on the [Climatelinks Climate Risk Management website](#)). Furthermore, a Climate Risk Profile to identify [Climate Risks in BHA Geographies for Ethiopia](#) has been developed to assist with CRM screening under this RFA-IEE.

Institutional Arrangement Plan

As a component of the Supplemental IEE, the Institutional Arrangement Plan (IAP) describes the budget and staffing needs for IEE implementation. The IAP describes the implementing partner capacity for fulfilling the implementation conditions required by the Supplemental IEE, EMMP and CRM screening. The IAP is submitted with the Supplemental IEE, and is later updated with the annual ESR⁴⁴. A budget for the implementation of the IEE (which is attached to the IAP) must be transparently demonstrated in the Detailed and Comprehensive Budget and Budget Narrative for the award. The budget includes provisions for:

- internal staffing
- technical support
- training
- monitoring/reporting
- pesticide expertise
- environmental assessments, as needed

⁴⁴ *The ESR is similar to the Environmental Mitigation and Monitoring Report (EMMR) used elsewhere in USAID. However, the ESR meets both purposes of reporting and budget planning for environmental compliance.

An IAP template can be found in [Annex 3](#) and at the following Google Drive: <https://drive.google.com/drive/u/1/folders/1CwBSuhORG54Ehe94KbpdecilwO52zGS8>

Budget Guidance. The budget for environmental compliance must not exceed the Total Estimated Cost (TEC) of the multi-year activity. Rather this compliance budget must be allocated from within the award TEC. Failure to do so in a transparent manner, will result in delays. The budgeting for environmental compliance is to be reviewed in the beginning of the activity, and annually with the Pipeline and Resource Estimate Proposals (PREPs⁴⁵). Refer to the [USAID Environmental Budgeting Toolkit](#) for step-by-step guidance for both budget developers and USAID budget reviewers. While the BEO can provide guidance on budgeting for environmental compliance, only the AO can authorize budget commitments.



Figure 4. Developing Activity Budgets for Environmental Compliance Requirements.

Source: Adapted from [Environmental Compliance Budgeting Toolkit](#), P.5.

**Note: It may be possible to combine Steps 3 and 4 into a single step, depending on the particular budgeting process. It is shown here as two separate steps for greatest clarity.*

USAID Clearances: The BEO Issues Letter

The BEO Issues Letter is a review memo that describes questions, concerns, or changes that should be made to the document before it can receive final BEO clearance. Issues Letter's are prepared following submission of IP inputs, both post-award and throughout the project life-cycle (IEEs, ESRs, PERSUAPs, EAs, etc.). The BEO will solicit MEO input on the Issues Letter for a field perspective (and REA input, as relevant), as well as BHA technical team input (gender, WASH, engineering, etc.) as appropriate. In accordance with AOR advisement, IPs will need to respond to the Issues Letter and revise their documentation accordingly before re-submitting for BEO clearance. Upon final BEO and CIL approval, all environmental compliance documentation is subsequently shared with the implementing partner and uploaded to the publicly accessible [Environmental Compliance Database](#). Supplemental IEEs must be approved by the USAID BHA Bureau Environmental Officer (BEO) and Climate Integration Lead (CIL) prior to the implementation of medium-risk interventions (i.e., classified as a Negative Determination with Conditions as per 22 CFR 216).

⁴⁵ The PREP describes an awardee's resource needs and interventions for a specific upcoming period of time agreed to by the partner and the Agreement Officer's Representative.

Drinking Water Quality-- Requirements and Additional Guidance

Per USAID regulations, implementing partners are required to monitor drinking water for arsenic and fecal coliform levels in the case of new construction or rehabilitation of drinking water infrastructure (Guidance Cable State 98 108651). USAID has developed a guidance tool for water quality, termed the [Water Quality Assurance Plan \(WQAP\)](#). This plan provides a template for partners to articulate a clear path for water quality assurance, as well as establish a corrective plan of action if contamination or exceedances are identified. Additional support for improved water supply systems can be found in the USAID [Visual Field Guide](#) which includes simple photo-rich monitoring tools in English and French. Water quality and quantity assurance is important for food security in Ethiopia. If DFSA applicants intend to directly or indirectly support the provision of potable water, partners should submit a plan for water quality assurance either through the WQAP or by incorporating the needed information in the EMMP. These WQAPs will also be shared with BHA WASH staff in Washington and/or the field.

Given the significant resource and capacity constraints within many BHA host countries, partners using the WQAP are strongly encouraged to tailor or modify this guidance to fit the context and to reflect a realistic plan for ensuring water quality. For example, if host government water quality labs are unavailable, partners could provide a plan for field monitoring of water quality that still strives to engage and build capacity of local officials or private operators.

CONDITION 3: IMPLEMENT ENVIRONMENTAL MONITORING REQUIREMENTS

Environmental monitoring is crucial to ensuring that environmental compliance and climate risk management requirements are being successfully implemented. Partners can use environmental monitoring systems and site visits (described below) to implement monitoring requirements. These methods should be incorporated into the project's wider M&E systems.

3A. DEVELOP ENVIRONMENTAL MONITORING SYSTEMS

EMMP Tools for Field Monitoring: Implementing Partners can develop EMMP tools (such as checklists) to assist in the integration of environmental management issues in the planning, design, implementation and monitoring phases. EMMP tools can be designed for rapid environmental diagnostic exercises, which aim to identify site-specific environmental conditions that may lead to the generation of localized impacts. This analysis can be used to determine the most appropriate environmental management strategies on a site-specific basis. For monitoring purposes, tools can also be designed to facilitate the data collection and monitoring of EMMP indicators. The environmental monitoring system that the partners use or develop should be described in the IAP, mentioned above under Condition 2.

One such example of site field monitoring tools is the [Visual Field Guides](#), which are intended to support field environmental monitoring of select interventions by development professionals, including those who are not environmental specialists. They are photo-based, simple yes-no checklists that identify the most typical, significant environmental design and management considerations by development sector.

Another example of an environmental monitoring checklist system is the Go Green Strategy (GGS). This scorecard system provides environmental management information in a simple Yes/No checklist, which can be used as a monthly monitoring tool by field agents. USAID conducted a more detailed assessment of the GGS through a field assessment, as described in the "[Examination of Environmental Foundations for Program Design Environmental Compliance Review and Go Green Strategy Snapshot](#)".

A new tool for use on phones, tablets and browsers is the [Nexus Environmental Assessment Tool \(NEAT+\)](#). NEAT+ is based in [Kobo Toolbox](#), open-source software for project level assessment of the current sensitivity of the local environment, highlighting any underlying vulnerabilities. NEAT+ is hosted on [EHA Connect](#) which is a portal to help environmental actors engage in the disaster space and humanitarians develop more resilient emergency management systems. The NEAT was developed with a broad range of humanitarian and environmental stakeholders as part of the [Joint Initiative](#) for the Coordination of Assessments for Environment in Humanitarian Action.

USAID Environmental Compliance Site Visits: As required by ADS 204.5.4, the AOR, in consultation with BHA Managers, Mission Environmental Officers (MEO) and/or the BHA/BEO will actively monitor and evaluate whether environmental consequences unforeseen under interventions covered by this current RFA IEE, and the Supplemental IEEs, arise during implementation and modify or end interventions as appropriate.

3B. INTEGRATE ENVIRONMENTAL MONITORING, INCLUDING CLIMATE RISKS, INTO M&E SYSTEMS

A key component of environmental safeguards for USAID activities is to ensure the inclusion of climate risk and environmental considerations into activity performance monitoring systems. For BHA, to promote ongoing safeguards for environmental goods and services while supporting food security, applicants will need to integrate environmental considerations into the overall activity M&E systems.

The M&E workshops, held at the start-up of new BHA development food security activities, are designed to convey M&E requirements and to strengthen awardees' Logical Frameworks and Indicator Performance Tracking Tables (IPTTs). During these workshops, awardees have an opportunity to learn about [environmental considerations](#) with M&E experts to coordinate the IPTT with the EMMP.

Implementing Partners can also visit the [Food and Nutrition Technical Assistance \(FANTA\) III](#) website for additional tools that can assist with environmental monitoring, such as indicator guides. For more than 15 years, the FANTA project provided support to USAID in the development of methods and best practice guidance to support rigorous M&E systems.

As described in the [Policy and Guidance for Monitoring, Evaluation, and Reporting of Development Food Security Activities](#), awardees may make other additions to the Performance Indicator Reference Sheet (PIRS) to clarify the use of a BHA or Mission indicator in the activity's M&E Plan. For example, text may be added to the Rationale section to identify the indicator as part of the activity's EMMP and explain how the indicator is environmentally sensitive to the activity context (please see the [Recommended Performance Indicator Reference Sheet](#)). Clarifications inserted into the PIRSSs, like those described above, do not 'change' the BHA or Mission indicator; they simply add more information about how the indicator will be collected and which activities beneficiaries or outputs will be considered.

CONDITION 4: REPORT ON USAID ENVIRONMENTAL COMPLIANCE

Reporting on environmental compliance throughout the programming lifecycle assists BHA in understanding whether the DFSA is making adequate progress toward achieving results from the prescribed environmental safeguards and compliance with USAID regulations. Implementing partners report on USAID environmental compliance by developing Environmental Status

Reports (ESRs) and integrating environmental and climate reporting into Annual Results Reports (ARRs).

Environmental Status Report (ESR)

ESRs⁴⁶ must be completed by all BHA awardees on an annual basis to report on progress toward achieving environmental compliance. ESRs must be submitted along with the M&E plans in January, or at least three 1-3 months before the anticipated PREP submission by the partners. The ESR is designed to:

1. Document environmental safeguard staffing and budget for the upcoming implementation year, matching the budget narrative for the award; and
2. Identify progress towards achieving environmental compliance and reducing climate risks, including a report out on EMMP monitoring.

The ESR template⁴⁷ provides instruction to awardees on what information must be included in the ESR.

Annual Results Reports (ARRs)

Awardees are required to submit an ARR for each FY during which interventions were implemented, regardless of when funding or food assistance commodities were provided. An ARR describes the performance results of interventions implemented during the reporting FY. The ARR should include the results of IPTT environmental and climate change indicators, environmental monitoring reports, assessments, action plans, and/or case studies related to the integration of environmental safeguards and climate change considerations. Please see the [USAID ARR Guidance](#) for more information.

CONDITION 5: DEVELOP AN ENVIRONMENTAL ASSESSMENT FOR ANY ACTIONS WITH POTENTIAL FOR SIGNIFICANT IMPACT TO ECOLOGICAL HABITATS, AS DETERMINED BY USAID.

Increasingly, BHA partners have been responding to the need to develop more significant physical infrastructure to meet food security demands. For activities with potential for significant environmental effect, USAID may require partners to complete a full environmental impact assessment.

A Positive Determination, pursuant to [22 CFR 216.3\(a\)\(2\)\(iii\)](#) or 22 CFR 216.5, may arise if an intervention determined as a Deferral by this RFA IEE is later identified as having the potential to cause significant environmental effect. Interventions that receive a Positive Determination will require further analysis, such as a [Scoping Statement](#) and [Environmental Assessment](#). The following classes of actions have been determined generally to have a significant effect:

- Programs of river basin development;
- Irrigation or water management projects, including dams and impoundments;
- Agricultural land leveling;

⁴⁶ Also known as Environmental Mitigation and Monitoring Reports (EMMRs) elsewhere in USAID.

⁴⁷ A Word version of the ESR template can also be found at the following Google Site: and at the following Google Drive:

<https://drive.google.com/drive/u/1/folders/1CwBSuhORG54Ehe94KbpdecilwO52zGS8>

- Drainage projects;
- Large scale agricultural mechanization;
- New lands development;
- Resettlement projects;
- Penetration road building or road improvement projects;
- Powerplants;
- Industrial plants;
- Potable water and sewerage projects other than those that are small-scale.

Additionally, if the proposed activity will have the effect of jeopardizing an endangered or threatened species or of adversely modifying its critical habitat, the Threshold Decision is a Positive Determination.

The previous DFSA awardees have developed a [Roads and Bridges PEA](#) for Ethiopia. Environmental safeguarding lessons from this PEA should be integrated into new DFSA programming.

CONDITION 6: PLAN FOR A PESTICIDE EVALUATION REPORT AND SAFE USE ACTION PLAN (PERSUAP)

6A. PERSUAPS FOR PESTICIDE USE (E.G. AGRICULTURE, LIVESTOCK, PUBLIC HEALTH, CONSTRUCTION)

BHA partners must take note that pursuant to [22 CFR 216.3\(b\)](#), in the event that any interventions include the promotion, procurement, transport, storage or disposal of pesticides for agricultural or livestock interventions, vector control interventions, or construction material treatment, a PERSUAP for proposed pesticides must be approved by the BHA/BEO prior to the commencement of these interventions. PERSUAPs should be submitted with Supplemental IEEs (or as amendments to Supplemental IEEs). For more information on USAID environmental compliance policy requirements related to pesticides and PERSUAPs, see this [Special Topic Presentation](#).

Tiering off of Existing Mission PERSUAPs. BHA encourages its awardees to tier off existing USAID analyses when possible, thereby reducing the need to carry out new and potentially redundant analyses, yet allowing for the appropriate consideration of the specific needs and context of each development food security activities. In this case, the BHA activity will need to develop a Safe Use Action Plan (SUAP). The SUAP provides a succinct, definitive stand-alone statement of compliance requirements, synthesized from the 12-factor analysis. It also assigns responsibilities and timelines for implementation of these requirements.

Ethiopia has a [Mission-Wide PERSUAP](#) for the Feed the Future Ethiopia Value Chain Activity (FTFE VCA) which expires on 12/31/2020. The mission is currently in the process of developing a new Mission-Wide PERSUAP, which partners will be able to tier-off from. Partners should work with the AOR and MEO to ensure compliance with the most up-to-date information available on the authorization status of pesticides. As noted above in Section 2, Ethiopia is facing one of the most serious Desert Locust outbreaks in decades. Partners should refer to the Mission-wide PERSUAP for pesticides approved for combatting locust outbreaks and coordinate with the AOR, MEO, and BEO closely.

6B. COMMODITY FUMIGATION MITIGATION REQUIREMENTS, PER THE USAID PEA FOR PHOSPHINE FUMIGATION OF STORED AGRICULTURAL COMMODITY

USAID requires that the person/people carrying out commodity fumigation operations hold official certification to perform the fumigation, use fumigants according to the directions on the product label, and follow all listed directions, precautions, and restrictions. Fumigants will be used only for commodities and at sites specified by the product label.

USAID has developed an assessment of environmental and health risks in the fumigation of food assistance commodity entitled [USAID Programmatic Environmental Assessment \(PEA\) for Phosphine Fumigation of Stored Agricultural Commodity](#). The PEA includes a [Pesticide Evaluation Report and Safer Use Action Plan \(PERSUAP\) template](#), and a [Fumigation Management Plan \(FMP\) template](#). These tools are intended to assist in compliance with the Fumigation PEA's requirement for completion of an activity-specific PERSUAP and FMP reporting. The Fumigation PERSUAP should be developed as soon as the warehouse and fumigation service providers are identified, and in advance of the need for fumigation. It is preferred that this PERSUAP be submitted with the Supplemental IEE, if possible. Specific mitigation requirements for the fumigant phosphine are provided in the Fumigation PEA.

Please note that TOPS has released their [Warehouse Staff Safety Guide](#) (November, 2014) which is an excellent resource to assist awardees in the design of education campaigns for warehouse commodity storage. The Warehouse Safety Guide posters, which highlight best fumigation practices, are in compliance with the findings of the Fumigation PEA, and complements the PEA with practical guidance, information, recommendations and tools to promote warehouse staff safety and prevent injury and illness. The materials include an 80-page manual, 7 Warehouse Staff Safety Posters, a 2-day Facilitator's Training Tool, and various other tools and checklists to help organizations adhere to minimum safety standards in the warehouse. The Guide was funded by USAID through a TOPS Program Micro-grant and developed by Project Concern International (PCI) and the TOPS Commodity Management Task Force. TOPS has also developed a [Facilitator's Guide to Integrated Pest Management and Fumigation Safety](#). This includes modules on pesticide compliance, integrated pest management, and phosphine fumigation.

CONDITION 7: SUPPORT THE MISSION IN THE DEVELOPMENT OF ANY BPR FOR ENVIRONMENTAL SAFEGUARDING

The Environmental Compliance Best Practice Review (BPR) was developed under the USAID Africa Bureau to enhance environmental management and oversight on USAID programming. Since 2008, over 20 BPRs have been conducted, principally in USAID's Africa and Asia regions. In 2015, USAID/AFR updated its BPR standard to account for updates to USAID Automated Directives System sections 201 and 204. Building from this updated USAID/AFR BPR standard, there has been a movement by other pillar and regional bureaus to undertake similar reviews, including in BHA. The purpose of the BPR is to improve the effectiveness of Mission and Bureau compliance with USAID's environmental and CRM procedures and to better integrate compliance into Mission and Bureau operations. Examples of previous BPRs are available upon request.

Process: BHA BPR reviews are conducted via a mix of desk review, interviews, and field visits, and result in an action plan to correct gaps and weaknesses in environmental compliance and CRM processes during project design and implementation. BPR reviews are not audits, but

voluntary gap analyses. IPs should coordinate with the BPR facilitators to determine the extent to which adequate environmental compliance and CRM procedures are integrated into all processes at the program and activity levels, as well as to identify any areas for improvement.

CONDITION 8: ENSURE COMPLIANCE WITH PARTNER COUNTRY ENVIRONMENTAL REGULATIONS, INCLUDING PSNP ESMF

Implementation will in all cases adhere to applicable partner country environmental laws. The Supplemental IEE supports and strengthens the rule of law for systems of environmental governance in partner countries. In order to ensure environmental compliance, the status and applicability of the partner country's policies, programs, and procedures in addressing natural resources, environment, food security, and other related issues must be incorporated into each activity. This may include incorporating the national policies pertaining to environmental assessment or other policies related to the sector. Implementing partners must be aware of and ensure compliance with the country's regulations where their activity is located.

The supplemental IEE and CRM screening must take into consideration the Productive Safety Net Program (PSNP) [Environmental and Social Management Framework \(ESMF\)](#) and include provisions for ensuring compliance with this framework. Partners must work with their PSNP counterparts, as well as the MEO and BEO, to ensure that USAID, host-country and PSNP environmental compliance requirements are being met, and to avoid unnecessary duplication of information. If PSNP environmental compliance documents meet the same standard (or better) for same/similar approaches, USAID may justify accepting ESMF documentation.

Approved IEEs from the same geographic areas may provide valuable guidance and be a beneficial resource for cross-checking information and developing a deeper knowledge of country-specific regulations and policies. These IEEs are available on the Agency's Environmental Compliance [Database](#).

6.0 LIMITATIONS OF THIS INITIAL ENVIRONMENTAL EXAMINATION

The determinations recommended in this document apply only to interventions described herein. Other activities that may arise must be documented in either a separate IEE, if the activities are within the same activity an IEE amendment, or other type of appropriate environmental compliance document and shall be subject to an environmental review.

Other than activities determined to have a Positive Threshold Decision, it is confirmed that the activities described herein do not involve actions normally having a significant effect on the environment, including those described in 22CFR216.2(d).

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

- 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);
- Procure or use genetically engineered organisms per §216.1(b)(1); and/or
- 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 AOR and awardees 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:

The attachments of this BHA RFA IEE provide templates and guidance for various components of the environmental review that are helpful for implementing partners (IPs) to develop project-specific environmental and climate risk management documentation. These attachments are available on USAID's BHA Google Drive:

<https://drive.google.com/drive/u/0/folders/1CwBSuhORG54Ehe94KbpdecilwO52zGS8>

The attachments include:

1. TEMPLATE FOR SUPPLEMENTAL INITIAL ENVIRONMENTAL EXAMINATIONS
2. TEMPLATE FOR ENVIRONMENTAL MITIGATION AND MONITORING PLANS
3. TEMPLATE FOR INSTITUTIONAL ARRANGEMENT PLAN
4. TEMPLATE FOR ENVIRONMENTAL STATUS REPORTS
5. GUIDANCE FOR CLIMATE RISK MANAGEMENT SCREENING

ANNEXES:

The annexes of this BHA RFA IEE address the environmental impacts and climate risks of COVID-19-impacted and COVID-19 response activities.

The annexes include:

1. [Annex A](#): Environmental Compliance and Climate Risk Management Guidance for COVID-19 Response
2. [Annex B](#): Pesticide Evaluation Report (PER) for Approved Disinfectants and 22 CFR 216.3(B)(1)A-L Analysis
3. [Annex C](#): Safer Use Action Plan (SUAP) for Use of Disinfectants
4. [Annex D](#): COVID-19 Prevention: Enhanced Cleaning and Disinfection Protocols
5. [Annex E](#): Illustrative Environmental Impacts and Mitigation Measures for COVID-Related Activities

ANNEX A: ENVIRONMENTAL COMPLIANCE AND CLIMATE RISK MANAGEMENT GUIDANCE FOR COVID-19 RESPONSE

PURPOSE

The COVID-19 pandemic has brought unprecedented risks to societies globally. USAID is highlighting environmental risks related to increased disinfectant use and waste management to ensure that responses to the pandemic do not introduce additional risks and challenges for beneficiary communities.

USAID has developed this environmental impact and climate risk analysis for the COVID-19 response to ensure all Bureau for Humanitarian Assistance (BHA) partners take responsibility for mitigating direct and indirect environmental and climate risks resulting from the COVID-19 pandemic.

This annex provides BEO conditions and guidance on mitigating key risks related to COVID-19 impacted- activities and COVID-19 response activities.

ACTIVITY DESCRIPTION

This annex describes protocols for the following three (3) DFSA activities:

- Activity 1: All current DFSA activities, within existing scope;
- Activity 2: Support for increased COVID-19 use of disinfectants/germicides and PPE;
- Activity 3: Support for COVID-19 small and medium enterprises (SMEs).

Activity 1: All of the BHA's life-saving and health/livelihood supporting objectives are assessed for environmental and climate risks/vulnerabilities within this RFA IEE and the resulting Supplemental (project-specific) IEEs, per standard procedures. BHA will pivot within existing scopes to provide critical support as part of the COVID-19 response.

Activity 2: Germicides & PPE: In order to prevent spread of the virus, it is expected that BHA partners will be relying on the increased use of germicides (e.g., disinfectants, sanitizers) to clean surfaces. BHA partners will also be using or supporting the use of increased Personal Protective Equipment (PPE) to minimize the spread of the virus.

Activity 3: Small and microenterprise (SME): USAID approved the use of program funds to finance the local production of medical-grade and non-medical grade personal protective equipment including (but not limited to) masks, gowns, face shields, protective eyewear, boot covers, linens, and gloves.

ANALYSIS OF ENVIRONMENTAL IMPACT AND CLIMATE RISK

The anticipated environmental impacts of COVID-19 are both direct and indirect. COVID-19 response actions relate directly to Activity 2 (disinfectant use), and Activity 3 (COVID-19 small and microenterprise support (SME) support). Indirect environmental impacts of COVID-19 pandemic are also described. [Annex E](#) provides additional information on potential environmental impacts.

Environmental and human health impacts related to:

- Exposure to COVID-19 at gatherings, informational sessions, and during essential work;

- Exposure to disinfectants/germicides, and hazardous wastes (medical waste, pharmaceuticals, electronics) in health facilities, businesses, public spaces, and/or households; and
- Increased exposure to zoonotic diseases through wildlife trafficking.

Direct environmental and ecological impacts related to:

- Pollution/contamination from inappropriate use or management of disinfectants;
- Pollution/contamination from inappropriately managed Small and Medium Enterprises (SMEs), such as those producing PPE or sanitizer;
- Increase in infectious waste stockpiles, as PPE use increases; and
- Increase in the use of single-use plastics, as, in some cases, plastic bag bans are lifted to minimize the spread of the virus on reusable bags.

Indirect environmental and ecological impacts related to:

- Increased deforestation due to reduced policing of international timber exploitation and community member livelihood coping mechanisms (e.g., charcoal making, firewood); and
- Increased non-timber forest products (e.g., wildlife trafficking), and associated minerals exploitations (e.g., artisanal gold, tantalum, tin, bauxite, mining etc.).

Additional information on the connection between COVID-19 and the environment can be found here: <https://www.genevaenvironmentnetwork.org/covid19.html>.

CLIMATE RISKS TO COVID-19 RESPONSE INTERVENTIONS & PREVALENCE OF ZOOONOTIC DISEASES

Climate and COVID-19

Climate and weather shocks and stressors can cause direct and indirect negative impacts to human health, such as heat waves leading to increased heat related illness, or changing temperatures, humidity and rainfall patterns, all of which change the distribution of infectious diseases.

While it is still early, preliminary evidence suggests that the distribution of significant community COVID-19 outbreaks is related in part to temperature and humidity. If this holds true, it may be possible to predict the regions most likely to be at higher risk of significant community spread of COVID-19, allowing for concentration of public health efforts on surveillance and containment. At the same time, a direct causation has not been proven between temperature, latitude, and COVID-19, and predictions in the near-term are speculative and have to be considered with extreme caution.

Furthermore, climate and weather shocks and stressors may also weaken health systems, and these systems' ability to respond to COVID-19. The most vulnerable populations are often the most impacted by climate and weather shocks and stressors, potentially putting more people at risk of serious illness due to COVID-19. These impacts may magnify the severity of COVID-19.

Climate and Zoonotic Diseases

There is also evidence to suggest that climate change can impact the spread of zoonotic diseases by increasing the likelihood of human-wildlife interactions. For example, climate change can impact wildlife species' ranges as they seek favorable conditions or food sources, bringing them in closer contact with humans. In some cases, species may benefit from changing climate patterns, leading to increased species density which can lead to greater pathogen transmission within the species. Inversely, as climate change negatively impacts human's livelihoods, people are more likely to seek alternative livelihoods or livelihood diversification through monetization of non-timber forest products, including wildlife. Both scenarios increase the likelihood for pathogen transmission between wildlife and humans.

ENVIRONMENTAL DETERMINATIONS AND CLIMATE RISK RATING

This section describes both the environmental compliance regulatory (22 CFR 216) and Climate Risk Management (ADS 201mal) risk ratings of BHA programs.

Environmental Determination of Interventions

The low environmental risk or **Categorical Exclusion determination (per 22 CFR 216.2(c)) no longer applies** to Education, Training, or any social gatherings and meetings within current BHA activities, as in Activity Type 1 and future, Activities 2 and 3.

- Categorical Exclusions will no longer apply. Activities that would previously qualify for a low or no risk, or a Categorical Exclusion, now present a risk of COVID-19 transmission through workplace exposure. As new COVID-19 safety protocols are established globally and implemented (e.g., social distancing, virus and antibody testing, contact tracing, etc), this determination may be subject to change.

A mid risk rating of a **Negative Determination** applies for Activity Type 2 (Disinfectants for COVID-19) and 3 (Small and Microenterprise for COVID-19).

CLIMATE RISK RATINGS OF COVID-19 RESPONSE INTERVENTIONS

All Climate Risk Management risk ratings for existing BHA activities (Activity 1), will follow current processes.

A **Moderate** climate risk rating is assigned for Activity 2, Support for increased COVID-19 use of disinfectants/germicides and PPE.

A **Low** climate risk rating is assigned for Activity 3, Support for COVID-19 small and medium enterprises.

BEO CONDITIONS FOR ENVIRONMENTAL AND CLIMATE SAFEGUARDING

All Ethiopia DFSAs must abide by the following conditions:

Condition 1: All formerly low-risk or Categorical Exclusion DFSA activities (e.g., education, training), must abide by environmental and public health stipulations until further notice.

Activities that would previously qualify for a Categorical Exclusion (i.e., training, gatherings, meetings) now present a risk of COVID-19 transmission through workplace exposure.

Therefore, Categorical Exclusions will no longer apply for any activities until disease transmission and tracking is under control. All activities must abide by the following guidelines:

- Seek to be informed about ways to prevent COVID-19 transmission over the course of the activities, including where appropriate, training staff and beneficiaries on social distancing, PPE use, and disinfection (See Annexes B-D). Guidance can be found from local authorities or at [CDC's Coronavirus Disease Site](#).
- [WHO Getting your Workplace Ready for COVID-19](#).
- UNICEF, WHO, IRCF [Key Messages and Actions for COVID-19 Prevention and Control in Schools](#)
- Where appropriate and available, the use of remote training and other non-face to face communications must be utilized when possible until the risk of infection pandemic passes.
- Follow local authorities regulations on the size of gatherings and travel advisories for COVID-19.
- Staff must be offered options for teleworking and/or to opt out of activities that they feel may put them at higher risk of infection, especially those that are particularly at risk (e.g., immunocompromised, those with respiratory infections, older adults) See [CDCs' People who Need Extra Precautions](#).

Please note that BHA has also developed [Guidance for BHA Development Food Security Activities Partners Working in COVID-19 Affected Operating Environments](#).

Condition 2: All BHA programs increasing the use of disinfectants and germicides will need to follow pertinent guidelines per USAID pesticide procedures, provided here-in.

There are a range of environmental health concerns related to increased disinfectant and germicide use. Some non-medical-use germicides utilized for cleaning inanimate objects and surfaces (environmental surfaces) are classified by the US Environmental Protection Agency (USEPA) as pesticides. This definitional distinction does not suggest that non-medical disinfectants are more toxic than medical use disinfectants. For purposes of USAID environmental review, however, this USEPA definition triggers the Pesticide Procedures analysis found at [22 CFR 216.3\(B\)\(1\)A-L](#).

More details are provided in Annexes B-D:

- Annex B: Pesticide Evaluation Report (PER) for Approved Disinfectants
- Annex C: Safer Use Action Plan (SUAP) for the Use of Disinfectants
- Annex D: COVID-19 Prevention: Enhanced Cleaning and Disinfection Protocols

For the purposes of COVID-19 response activities, Annexes B and C satisfy the pesticide analysis requirements of [22 CFR 216.3](#). Partners must abide by the Pesticide evaluation Report (PER) found in Annex B and the Safer Use Action Plan (SUAP) found in Annex C. Annex D provides additional guidance and best practices on disinfection protocols.

The most recent list of surface disinfectants approved by the USEPA for COVID-19 can be found here: [List N: Disinfectants for Use Against SARS-CoV-2 \(COVID-19\)](#)

Condition 3: All DFSAs must plan to manage for increased infectious and plastic waste streams in activities, due to COVID-19.

COVID-related response activities have the potential to generate significant amounts of additional plastic waste, much of it infectious. For example, PPE use for all activity types will increase. PPE is often plastic and billions of masks and gloves are being discarded around the world. Further, many plastic bag bans are temporarily lifted to reduce the risk of the virus spreading via personal reusable bags. Existing recycling initiatives will also be facing staffing challenges. Therefore, managing this waste stream is crucial now more than ever. Partners must work to ensure that all activities (including COVID response activities) have the appropriate waste management protocols in place to minimize the impact of this waste on human health and the environment.

During this time, waste that could potentially be contaminated with the COVID-19 virus needs to be treated as infectious medical waste. See guidance on waste management for COVID-19 response efforts here: <https://www.unenvironment.org/news-and-stories/press-release/waste-management-essential-public-service-fight-beat-covid-19>.

Additional mitigation measures can be found in [Annex E](#).

Condition 4: All DFSAs must include awareness of pandemic health risks of activities (e.g. irrigation, roads) that disrupt wildlife habitat and are exacerbated by climate risks.

DFSAs must integrate lessons learned from the COVID-19 pandemic into design considerations for future awards. Projects that involve potential ecological habitat loss (e.g., irrigation, road infrastructure) must include the additional risks related to zoonotic disease transmission risks and how climate risks may exacerbate the prevalence and spread.

As well, DFSAs will incorporate such infectious disease transmission risks associated with ecological disruption and climate stressors in ongoing oversight of existing Environmental Compliance and Climate Risk Management of activities. Such risks will be balanced with other more traditional climate risks and environmental impacts identified.

Condition 5: All DFSAs will comply with COVID-19 local and international standards.

In line with Condition 5, the operating environment for BHA projects has now shifted, and even activities unrelated to COVID-19 response actions are impacted. Therefore, in all project activities, BHA Operating Units must abide by the following:

- Interventions must build awareness, providing and requiring training and capacity building around best environmental and health and safety practices in the context of COVID-19 pandemic;
- Follow Agency and international guidelines for COVID-19 response (see Section 2.2 for examples);
- Ensure access to technical expertise for implementing sound environmental and health and safety practices for COVID-19-response and COVID-affected activities; and
- Comply with relevant host country and international standards regulations pertaining to COVID-19.

Condition 6: All DFSAs will alert the BEO of any scope change from governing IEEs.

While BHA Operating Units do not anticipate implementing COVID-19 response activities outside the scope of existing Results Frameworks, USAID recognizes that the COVID-19 situation is changing rapidly and projects will have to respond accordingly. A/CORs must monitor the implementation of COVID-19 response activities for any actions outside of the existing scope assessed by office-specific IEEs. A/CORs must report these actions to the MEO and BEO for resolution on a case-by-case basis.

Condition 7: All DFSAs will include ESR reporting on COVID-19 response activities.

Environmental Status Reports (ESRs) must include reporting on implementation of Environmental Compliance for COVID response interventions.

ANNEX B: PESTICIDE EVALUATION REPORT (PER) FOR APPROVED DISINFECTANTS AND 22 CFR 216.3(B)(1)A-L ANALYSIS

For the purpose of this document, uses of disinfectants (germicides) are divided into non-medical and medical uses. Some non-medical-use germicides utilized for cleaning inanimate objects and surfaces (environmental surfaces) are classified by the US Environmental Protection Agency (USEPA) as pesticides. This definitional distinction does not suggest that non-medical disinfectants are more toxic than medical use disinfectants. For purposes of USAID environmental review, however, this USEPA definition triggers the Pesticide Procedures analysis found at 22 CFR 216.3(B)(1)A-L.

CATEGORIZATIONS OF DISINFECTANTS/GERMICIDES

USAID programs seeking to provide guidance to businesses, institutions and individuals in the procurement and use of disinfectants and sterilants on environmental surfaces (i.e., are not providing guidance on their use for medical purposes) must comply with conditions for non-medical Use of Disinfectants (see Part a) and seek guidance primarily from local authorities. USAID programs seeking to provide guidance for use of pesticides to medical facilities must comply with conditions for Medical Use of Disinfectants (see Part b).

a) Conditions for Non-Medical Use of Disinfectants/Germicides

For activities described below, use of disinfectants/germicides constitutes use of pesticides:

- Procurement and distribution of disinfectant/germicides by partners to all facilities, community health workers, businesses, public institutions, and households for cleaning and disinfection.
- ULV fogging and community-wide surface cleaning in non-medical facilities.
- Training and demonstration of disinfectant/germicide preparation and use as well as solid and liquid waste management.

This is because disinfectant/germicide use on non-medical surfaces is considered use of a pesticide and regulated by USEPA and therefore under 22 CFR 216.3(b)(1)(i) requires USAID Pesticide Procedures' "12-factor analysis."

As such, for these activities the following conditions will apply:

- Use only the following AIs as a sole ingredient and/or in combination of ingredients, that are registered and approved by USEPA and per the BHA COVID-19 PIEE for use of cleaning and disinfecting surfaces:
 - **Alcohols:** Ethanol, Isopropanol, Triethylene Glycol
 - **Salts:** Ammonium Carbonate, Ammonium Bicarbonate, Sodium Carbonate, Sodium Chlorite, Sodium Dichloro-S-Triazinetrione, Sodium Dischloroisocyanurate Dihydrate, Sodium Hypochlorite
 - **Acids:** Citric, Hypochlorous, Glycolic, L-Lactic, Octanoic, Peracetic, Peroxyacetic, Peroxyoctanoic, Phenolics
 - **Peroxides:** Hydrogen Peroxide, Peroxyhydrate
 - **Quaternary Ammonium** compounds
 - **Other ingredients:** Silver ions, botanical oil thymol

- Select products that contain active ingredients or mixture of active ingredients that are approved by this BHA COVID-19 PIEE listed above. For selecting which concentrations are effective, it is best to consult the [USEPA-approved list of products](#) and identify same or similar products.
- The partner must complete the disinfectant checklist for their planned interventions using disinfectants and retain the document with their EMMP.
- The A/COR and MEO must review and clear on the disinfectant checklist.
- Consult local authorities and follow host country established channels of communication when providing recommendations and procedures for use of disinfectants/germicides.

b) **Conditions for Medical Use of Disinfectants/Germicides**

For activities described below, use of disinfectants/germicides constitutes use of pesticides:

- Use of antiseptics/disinfectants/sterilant germicides on human body and medical **devices and in medical facilities on medical equipment.**

Best Management Practices, Health and Safety and Environmental Mitigation Measures specified by lead health organizations, such as CDC, must be applied to these uses and detailed in the EMMP. Recently developed references for COVID-19 in healthcare settings can be found at:

- CDC's [Information for HealthCare Professionals](#)
- CDC's [Information for Laboratories](#)
- CDC's [Rationale and Considerations for Chlorine Use in Infection Control for Non- U.S. General Healthcare Settings](#)

MANDATORY 22 CFR 216.3(B)(1) - 12-FACTOR ANALYSIS FOR PESTICIDES

The following 12-factor analysis meets the requirements mandated by 22 CFR 216.3(b)(1) for pesticide analysis. is intended to assist and serve as a basis for SIEE development for implementing partners engaged in activities requiring use of germicides that fall under definition of pesticides as described above. Modifications and additions of relevant information can be made as appropriate.

A. U.S. Environmental Protection Agency (US USEPA) registration status of the proposed pesticides

Active ingredients (AIs) and combinations of AIs listed above are registered by USEPA.

B. Basis for selection of pesticides

These pesticides were recommended by USEPA as effective for treatment of environmental surfaces and are based on full product list provided by USEPA at:

<https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>

C. Extent to which the proposed pesticide use is part of an IPM program

These AIs are recommended in combination with handwashing measures and recommendations to avoid touching face, eyes and mouth with unwashed hands. The following site provides links to both CDC recommended hand cleaning procedures: <https://www.cdc.gov/coronavirus/2019-ncov/prepare/prevention.html>

D. Proposed method or methods of application, including the availability of application and safety equipment

Methods of application of products are in accordance with the label and manufacturer instructions. For home made products follow strictly dosage instructions provided by relevant authorities.

E. Any acute and long-term toxicological issues with the proposed use, and measures available to minimize such hazards

All chemical disinfectants are, by their very nature, potentially harmful or toxic to living organisms. Like other toxic substances, the chemical disinfectants can enter the body through several routes, including absorption through skin or mucous membrane, inhalation and ingestion. Sometimes a chemical substance can enter through more than one of the routes. However, chemical disinfectants would be effective and safe tools when handled properly with the safety measures in place. If misused, they can be hazardous and harmful to people and the environment⁴⁸.

Accidental exposure in high doses may result in acute toxic reaction such as skin irritation, dizziness or nausea, or they may be permanent: blindness, scars from acid burns, mental impairment and other adverse health effects. Acute toxicity is often seen within minutes or hours after a sudden, high exposure to a chemical. However, there are a few instances where a one-time high-level exposure causes delayed effects. Symptoms of exposures may not appear for several days.

As a general rule, chronic toxicity appears many years after exposure first began. The health effects may occur where exposure has taken place repeatedly over many years. For this activity, repeated exposure over the long term is not anticipated.

Disinfectants can pose physical/chemical risks and can be flammable or explosive. Products must be stored at temperatures designated by their labels/Safety Data Sheets.

All AIs and products must be accompanied by the label and, where available, a Safety Data Sheet. First aid instructions must be available to users and health workers.

All disinfecting products/AIs and their containers must be properly triple rinsed away from all water sources, punctured and properly recycled or disposed of, never reused.

F. Effectiveness of the requested pesticide for the proposed use

The AI approved by this IEE are contained in USEPA approved/recommended products for disinfection of environmental surfaces against COVID-19.

⁴⁸ <https://www.labour.gov.hk/eng/public/os/C/Disinfectants.pdf>

G. Compatibility of the proposed pesticide use with target and non-target ecosystems

Disinfectants contribute to air and water pollution during their manufacture and use. Cleaning, sanitizing and disinfecting products can increase indoor air pollution. However, AIs identified by USEPA as effective against COVID-19 are recommended by this IEE.

H. Conditions under which the pesticide is to be used, including climate, geography, hydrology, and soils

AIs in products recommended will be used mostly indoors and surfaces around structures. These AIs/products must be used away from ambient environmental water sources and in a manner that prevents runoff.

I. Availability of other pesticides or non-chemical control methods

Only AIs/Products registered by USEPA are recommended. Other AIs, such as aldehydes that are approved by EU for disinfection, are not covered by this IEE.

J. Host country's ability to regulate or control the distribution, storage, use, and disposal of the requested pesticide

Many BHA-affiliated host countries have limited frameworks for regulation of pesticides and most do not satisfactorily regulate disinfectants for use on environmental surfaces. Regulation of disinfectants is a joint effort between Ministries of Health (MoH) and Ministries of Environment (MoE). Many BHA program regions have a network of health clinics and environmental quality directorates that can be instrumental for Training of Trainers (TOT) and promulgation of guidelines for use of disinfectants.

K. Provision for training of users and applicator

Guidelines, training materials and awareness built through Social Behavior Change Communication (SBCC) messaging must be developed for each country, translated to local languages, and distributed through MoH networks. These must also include a list of AIs, labels, SDSs, and instructions for first aid and environmental controls.

L. Provision made for monitoring the use and effectiveness of each pesticide

Use and effectiveness will be tracked through regular reporting by the partners supporting the actions involving germicides. Overall, monitoring effectiveness in limiting spread of COVID-19 will depend on numerous factors that are likely to be monitored as part of disease surveillance by host countries' Ministries of Health and their international donors.

ANNEX C: SAFER USE ACTION PLAN (SUAP) FOR USE OF DISINFECTANTS

This annex flows from the Pesticide Evaluation Report (PER) analysis to provide conditions for safe use of disinfectants, including specific practices related to COVID-19. Together with Annex 3, the PER and SUAP satisfy the requirements of 22 CFR 216.3(b)(1)(i). Since information and best practices are still evolving, users must frequently visit websites for updates and maintain contact with their local health authorities.

DISINFECTION PROCEDURES⁴⁹

Disinfection at a household with a suspect or confirmed case of COVID-19:

A complete guide to disinfecting households with suspected or confirmed COVID-19 cases is available at: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cleaning-disinfection.html>

When using manufactured product for disinfection of inanimate objects:

- a) Select products that contain active ingredients or mixture of active ingredients that are approved by this IEE. For selecting which concentrations are effective, it is best to consult the USEPA-approved list of products and identify the same or similar products. A full list of products approved is available at: <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>
- b) Always ensure that the product has a proper label. Labels of disinfectants must include the following information:
 - Product name
 - Company name and address
 - Net contents
 - Manufacturing/host country registration detail
 - Active ingredients statement
 - Child hazard warning
 - Hazard signal word
 - First aid instructions
 - Precautionary statements and requirements for use of PPE
 - Environmental hazards statements
 - Physical/chemical hazards statements
 - Directions for use and misuse statement
 - Storage and disposal instructions
- c) Always use products in accordance with the label. Strict attention must be given to the proper use of a product with regard to its application, effectiveness, and associated hazards (human, animal, and environment). Where possible, obtain the Safety Data Sheet that provides more extensive product detail.

⁴⁹ Under no circumstances should disinfectants be ingested. All disinfectant use must strictly follow the guidelines on the label.

Directions for use must specify:

- The surfaces, objects or inanimate environments intended for treatment (floors, walls, bathroom surfaces, etc.)
- The major areas in which the product is intended for use (hospitals, restaurants, homes, schools).
- The level of activity (e.g., Sanitizer, Disinfectant, Sporicide)
- Pathogens against which product is effective
- How the product must be applied
- Pre--cleaning steps
- Recommended use dilution and provide instructions for preparing it including the units of measure (milliliters, liters, ounces, quarts).
- Method of application
- Contact time
- How to remove the product from the surface after the recommended exposure time [1]

When using homemade products for disinfection of inanimate objects:

Natural household disinfectants may be less effective than commercial household disinfectants. It is important to be informed on hazards of AI(s) used for homemade product preparations. Where possible, SDS sheets must be obtained for AI(s) used in preparing homemade products. The SDS information and risk assessment will help determine, the PPE requirements, describe health hazards of unprotected exposure to people and animals, describe physical hazards such as flammability and explosion, and environmental hazards such as toxicity to aquatic organisms, provide hazard statements and first aid instructions and instructions for use, storage and disposal of chemical used in making of a disinfectant.

COVID-19 CATEGORIES OF DISINFECTANTS – CONSIDERATIONS FOR SAFE USE

Bleach⁵⁰

Homemade disinfectants are most commonly made from household bleach. Chlorine containing bleach is a common household disinfectant.

Household bleach is usually a mixture of chemicals, its main active ingredient is a solution of ~3-6% sodium hypochlorite (NaOCl), which is mixed with small amounts of sodium hydroxide, hydrogen peroxide, and calcium hypochlorite. Unexpired household bleach will be effective against coronaviruses when properly diluted.

Bleach solution preparation recommended by CDC⁽¹⁾:

Diluted household bleach solutions can be used if appropriate for the surface.

- Prepare a bleach solution by mixing:
 - 5 tablespoons (1/3rd cup) bleach per gallon of water or
 - 4 teaspoons bleach per quart of water
- Follow manufacturer's instructions for application and proper ventilation.

⁵⁰ Note that bleach and vinegar must NOT be mixed, as they release chlorine gas. The bleach decomposes to form hydrochloric acid, which reacts with ammonia to form toxic chloramine fumes. If ammonia is present in excess (which it may or may not be, depending on your mixture), toxic and potentially explosive liquid hydrazine may be formed.

- Check to ensure the product is not past its expiration date.
- Never mix household bleach with ammonia or any other cleanser.

Excessive use of bleach indoors, especially when mixed with some other cleaning agents, can release harmful chlorine gas. Inhalation and long term exposure can cause lung damage and respiratory illnesses.

Chlorine compounds found in bleach are unstable and react with a variety of chemicals and water when it is released into the environment. Because chlorine is so reactive, it is not normally detected in the environment except for very low levels. Bleach spilled into surface water may adversely affect aquatic organisms. Inhaling bleach fumes may cause eye, nose, throat irritation depending on dosage. The effects will depend also on exposure duration. In general, people who suffer from respiratory conditions such as allergies or hay fever, or who are heavy smokers, tend to experience more severe effects than healthy subjects or nonsmokers. Spilling hypochlorite solution on the skin can produce irritation. The severity of the effects depends on the concentration of sodium hypochlorite in the bleach. Drinking small amounts of hypochlorite solution (less than a cup) can produce irritation of the esophagus. Drinking concentrated hypochlorite solution can produce severe damage to the upper digestive tract and even death. These effects are most likely caused by the caustic nature of the hypochlorite solution and not from exposure to molecular chlorine. Long-term exposure to small amounts of sodium hypochlorite has not shown to have significant impacts on human health.^[2]

Alcohols

Alcohols that are components of drinking beverages and rubbing alcohols are recommended for sanitizing, not for drinking. Alcohol products must be at least 70%. Most drinking beverages are below 48% alcohol and not appropriate for sanitizing.

Rubbing alcohol products that are at least 70 percent alcohol reportedly will kill viruses. When using rubbing alcohol, do not dilute it below 70%. Alcohol higher than 70% is not always better, and 70% alcohol is better than 91% because water plays a key role in protein denaturation. Consumer Reports says rubbing alcohol is safe for all surfaces but can discolor some plastics.

Although it has the word alcohol in its name, rubbing alcohol is completely different from the ethyl alcohol found in alcoholic beverages. Isopropyl alcohol, also referred to as isopropanol and IPA, is twice as toxic as ethanol. Swallowing just 8 ounces, or 240 milliliters, of rubbing alcohol can be fatal — but as little as 20 milliliters mixed with water can make a person sick.

Inhaling rubbing alcohol can also cause serious side effects, including headache, nausea, vomiting and irritation of the nasal passages and lungs. Inhaling isopropanol fumes can cause a loss of consciousness.^[4]

Hydrogen Peroxide

Hydrogen peroxide is typically sold in concentrations of about 3%. Hydrogen peroxide at this concentration must be able to neutralize the coronavirus. It is recommended to be left on surfaces for at least 1 minute. Hydrogen peroxide is not corrosive and can be used on metal surfaces. Similar to bleach, it can discolor fabrics. Hydrogen peroxide had minimal impact on the environment as it decomposes into oxygen and water.

Acids

Commercial products effective against Covid-19 often contain acids. Acids range from weak to very strong. Weak acids such as household vinegar are not likely to be effective against coronavirus (NOTE: Household vinegar (5% acetic acid) combined with hydrogen peroxide creates peroxyacetic acid. It's an EPA approved, environmentally friendly, disinfectant for coronavirus).

Concentrated industrial strength acids are not recommended as they can be extremely corrosive and can cause dangerous burns when not handled properly. Only acids approved by this IEE can be used in preparation of homemade products.^[6]

Quaternary ammonium compounds

The quaternary ammonium compounds (QAC) are widely used as surface disinfectants and are an active ingredient in household cleaning products. Health hazards of QACs include contact dermatitis, triggering of asthma symptoms in people who already have asthma or new onset of asthma in people with no prior asthma, eye and mucous membrane injuries from splashes or contact with mists, and oral and gastrointestinal injuries from swallowing solutions containing QACs.^[6] Some household products can be diluted with water but the correct dosage effective against Covid-19 must be established.^[7]

Oils

Botanical oil thymol is an ingredient in some USEPA approved products effective against Covid-19. There is no evidence that other oils such as tea tree oil are effective.

ANNEX D. COVID-19 PREVENTION: ENHANCED CLEANING AND DISINFECTION PROTOCOLS

In alignment with public health recommendations, the following enhanced cleaning and disinfection protocols are recommended for helping to prevent community spread of COVID-19:

1. ENHANCED CLEANING FOR PREVENTION

General guidance:

- a) Increase the frequency of cleaning and disinfecting, **focusing on high-touch surfaces**, such as residence hall communal rooms, public restrooms, exercise rooms, library tables, buttons, handrails, tables, faucets, doorknobs, and shared keyboards. Increased frequency of cleaning and disinfecting with attention to these areas helps remove bacteria and viruses, including the novel coronavirus.
- b) Practice good hand hygiene after cleaning (and always!):
 - i. Wash hands often with soap and warm water for at least 20 seconds.
 - ii. If soap and warm water are not readily available, use an alcohol-based hand sanitizer that contains at least 60% alcohol.

Safety guidelines during cleaning and disinfection:

- a) Wear disposable gloves when cleaning and disinfecting. Gloves must be discarded after each use. Clean hands immediately after gloves are removed.
- b) Wear eye protection when there is a potential for splash or splatter to the face.
- c) Gowns or aprons are recommended to protect personal clothing.
- d) Store chemicals in labeled, closed containers. Keep them in a secure area away from children and food. Store them in a manner that prevents tipping or spilling.

Cleaning and disinfection of surfaces:

- a) Clean surfaces and objects that are visibly soiled first. If surfaces are dirty to sight or touch, they must be cleaned using a detergent or soap and water prior to disinfection.
- b) Clean and disinfect affected surfaces as soon as possible after a known exposure to person with respiratory symptoms (such as coughing/sneezing).
- c) Use an EPA-registered disinfectant for use against COVID-19. Refer to the list of [products pre-approved](#) for use against emerging enveloped viral pathogens, or the list of [disinfectants](#) for use against SARS-CoV-2.
- d) Follow the manufacturer's instructions for safe and effective use of all cleaning and disinfection products (e.g., dilution concentration, application method and contact time, required ventilation, and use of personal protective equipment)..
- e) Consult manufacturer recommendations on cleaning products appropriate for electronics. If no guidance is available, consider the use of alcohol-based wipes or spray containing at least 70% alcohol. Use of alcohol-based products may reduce risk of damage to sensitive machine components. Whenever possible, consider using wipeable covers for electronics.
- f) The following products are effective for disinfection of hard, non-porous surfaces:
 - i. A 10% diluted bleach solution, an alcohol solution with at least 70% alcohol, and/or an EPA-registered disinfectant for use against COVID-19.
 - ii. Prepare a 10% diluted bleach solution by doing the following:
 - Mix five tablespoons of bleach per gallon of water.

- After application, allow 2 minutes of contact time before wiping, or allow to air dry (without wiping).
- g) For soft (porous) surfaces such as carpeted floor, rugs, and drapes:
 - i. Remove visible contamination (if present) and clean with appropriate cleaners indicated for use on these surfaces.
 - ii. After cleaning, launder items (as appropriate) in accordance with the manufacturer's instructions. If possible, launder items using the warmest appropriate water setting for the items and dry items completely.
 - iii. If laundering is not possible, use an EPA-registered disinfectant for use against COVID-19. Refer to the list of [products pre-approved](#) for use against emerging enveloped viral pathogens, or the list of [disinfectants](#) for use against SARS-CoV-2.

ANNEX E. ILLUSTRATIVE ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES FOR COVID-RELATED ACTIVITIES

Activity	Potential environmental and social impacts	Mitigation Measures
Support for the increased use of disinfectants/germicides		
<p>Procurement, distribution, training, and use of germicides on surfaces</p> <ul style="list-style-type: none"> -in community setting -businesses -in private homes 	<p>Environmental and health risks of using germicides are dependent on the specific germicide used, method of application, and target, among numerous other factors. In the case of community use, applicators may be less knowledgeable of the risks, appropriate preparation (e.g., dilution) of the germicide. Additionally, they may inappropriately apply the germicide (e.g., not adhering to contact time requirements). Therefore, specific risks cannot be identified but a very general review of associated risks is presented below.</p> <p>Occupational and public exposure risks. Use of germicides by the public and community workers may increase the risk of these persons for developing respiratory illnesses (e.g., asthma) and contact dermatitis, especially when engineering controls (e.g., closed containers, adequate ventilation) and PPE (e.g., gloves) are not being used.</p> <p>Risks inherent to making homemade products. Where manufacturer products are not available, homemade germicides are sometimes prepared. Improper use of chemicals may cause allergic reactions and dermatitis, mixing some solutions, such as cleaning materials that contain ammonia and chlorine may form a deadly gas, some chemicals are irritating to eyes and to the</p>	<p>Per USAID 22 CFR 216.3(b), pesticides must undergo further analysis. USEPA regulates germicides applied to objects and surfaces (but it does not regulate use of germicides in medical settings). Therefore use of disinfectants for non-medical purposes requires a 22 CFR 216.3(b)(1)(i)a-l analysis be completed for the selected germicides. Local authorities, host country health ministries, and international and US authorities must be consulted for a list of effective products for the particular pathogen of concern. The following resources are available, but may be updated or changed with the evolving context:</p> <ul style="list-style-type: none"> • CDC and USEPA recommended germicides for cleaning surfaces: https://www.cdc.gov/coronavirus/2019-ncov/prepare/prevention.html • https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2 <p>All support for increased use of disinfectants/germicides must abide by the PERSUAP analysis found in Annex B and Annex C of this PIEE.</p>

Activity	Potential environmental and social impacts	Mitigation Measures
	<p>respiratory system. Some of the chemical disinfectants are flammable and explosive.</p> <p>Ineffective treatment risk. Pathogens can be ineffectively treated if there is use of an inappropriate product (i.e., pathogens if intrinsically resistant), application of the product improperly (i.e., incorrect duration, concentration, pH, temperature), failure to remove inorganic debris (i.e., improper cleaning) prior to disinfection, insufficient contact of the disinfectant with the surface to be treated, insufficient concentration of active product.</p> <p>Environmental risks. Germicides are selected for their toxic properties and therefore these products may harm beneficial microorganisms, plant and animal life. Some chemicals can contribute to pollution of air, water and soil and some may persist and bioaccumulate during their manufacture, use, or disposal.</p>	
<p>Procurement, distribution, training, and use of ULV or fogging germicides</p> <p>-in a community setting</p>	<p>ULV and fogging in public spaces, including city streets, public transportation, schools, community buildings, mosques and churches is typically conducted using ultra-low concentration sodium hypochlorite (dilute bleach); however, the active ingredient used may vary depending on the type of pathogen. The environmental and health risks associated with germicides are dependent on the specific germicide used, method of application, and target, among numerous other factors. Therefore, specific risks cannot be identified but a very general review of associated risk is provided in Sub-activity 4.1.</p>	

Activity	Potential environmental and social impacts	Mitigation Measures
	<p>ULVs in particular can pose respiratory threat to workers spraying and to certain sensitive populations, such as those with respiratory illness. Some skin sensitivity may also be possible in the general population. and patients if inappropriately conducted in the healthcare setting.</p>	
<p>Procurement, distribution, training, and use of germicides -on surfaces in a medical facility setting</p>	<p>See Sub-activity 4.1</p>	<p>a) For all manufactured and homemade products when selecting a disinfectant/germicide for a particular use, the user must be informed and take into consideration the human and environmental hazardous properties of the chemical and know how to use it properly. Safety Data Sheet (SDS) for all materials used and use instructions must be read and understood by all individuals, who will use the chemicals.</p>
<p>Procurement, distribution, training, and use of ULV or fogging germicides in a health facility setting</p>	<p>Environmental and health risks to germicides are dependent on the specific germicide used, method of application, and target, among numerous other factors. Therefore, specific risks cannot be identified but a very general review of associated risk is provided in Sub-activity 3.4. ULVs in particular can pose respiratory threat to workers and patients if inappropriately conducted in the healthcare setting. Older methods of fogging such as the use of formaldehyde, phenol-agents, and quaternary ammonium have shown adverse effects on health in facilities and many are no longer approved by EPA. Newer methods may not have entirely evaluated associated environmental risks.</p>	<p>• <u>In the absence of local guidance, the IP must develop SOP/EHS manuals for the use of germicides or identify applicable SOP resources for disinfection.. See Sub-activity 3.1 for expectations of SOP/EHS contents. The appropriate references must be identified at the time of the outbreak. Two possible resources are:</u></p> <ul style="list-style-type: none"> • Guideline for Disinfection and Sterilization in Healthcare Facilities, 2008 Update: May 2019 • FDA-Cleared Sterilants and High-Level Disinfectants with General Claims for Processing Reusable Medical and Dental Devices <p>• General guidance is also provided in Annex 5 and 6</p> <p>• Where the IP is supporting use of training of germicides, the implicated staff must be provided training on appropriate use of the disinfectant/germicide, PPE use, health and environmental risks of germicidal use, and appropriate waste treatment methods.</p> <p>• Appropriate PPE must be provided to trainees or staff supported by the IP for use and training.</p>

Activity	Potential environmental and social impacts	Mitigation Measures
Support for small and medium enterprises specific to COVID-19 response		
<p>Training, capacity building, small grants, technical assistance and purchase of equipment of supplies for small and medium scale enterprises (SMEs). Illustrative new SMEs responding to COVID-19 may include but not limited to:</p> <ul style="list-style-type: none"> -PPE production -Sanitizer production -Delivery services -Technology development -Use of UAVs to deliver samples/products 	<p>SMEs can cause significant environmental and related public health difficulties, which vary as broadly as the types of enterprises. SMEs can be more pollution-intensive than larger enterprises (per unit of production). When they are numerous and/or concentrated in particular areas, they can create environmental problems of alarming proportions.</p> <p>The adverse environmental impacts of SMEs can impose heavy social and economic burdens on their communities—degrading the ecosystem and food sources, undermining the health of neighbors and workers, and consuming fuel and resources beyond the point of renewability. These burdens in turn place significant costs upon not only the culpable SMEs but also other businesses—such as costs of procuring fuel, and costs of lost worker productivity due to sickness or injury.</p> <p>Environmental Problems caused by SMEs include:</p> <ul style="list-style-type: none"> • Chemical and hazardous waste • Air pollution and particulate dust • Water pollution • Soil erosion • Natural resource depletion • Solid waste • Odor • Noise • Health and safety risks 	<ol style="list-style-type: none"> a. Activities shall be conducted following principles of USAID small scale guidelines chapters: https://www.usaid.gov/environmental-procedures/sectoral-environmental-social-best-practices/sector-environmental-guidelines-resources#ms b. For support to banks, financial institutions, or small grants, activities will be screened to categorize the SME's work to the types and significance of environmental impacts they generate. c. Assistance for SME must comply with local, national, USAID, or its own organizational environmental policies. Yet, it is unreasonable to expect for IPs to conduct a detailed assessment of the impacts of every SME they work with. The goal of the screening phase is to determine quickly and easily assess if an assistance request from an SME (for a loan, business planning, accounting training, etc.) will need environmental review before it can be approved. d. With activities involving hazardous materials, the implementing partner must work with the business to develop a written plan to ensure appropriate procurement, storage, management and/or disposal of these materials.

Activity	Potential environmental and social impacts	Mitigation Measures
	<p>Many decisions made by SMEs have the potential to harm the environment and public health. Specific examples include:</p> <ul style="list-style-type: none"> • Location decisions • Purchasing decisions • Processing/manufacturing decisions • Housekeeping decisions • Waste disposal decisions <p>Overall, adverse impacts are often caused by poor practices that go uncorrected because operators don't have the right technical information. Insufficient knowledge can lead to improper use of chemicals, inadequate treatment or disposal of solid and liquid waste, uncontrolled chemical air pollution, and production techniques that make intensive use of nonrenewable resources. Health and safety problems, in particular, are compounded by ignorance of industrial safety and environmental standards, as well as by lack of awareness of protective devices that are generally inexpensive and easy to obtain.</p>	