INITIAL ENVIRONMENTAL EXAMINATION

PROJECT/ACTIVITY DATA

Project/Activity Name:	Youth Connect
Geographic Location(s) (Country/Region)**:**	Niger and Burkina Faso
Amendment (Yes/No), if Yes indicate # (1, 2...):	No
Implementation Start/End Date (FY or M/D/Y)**:**	01/01/2020 – 12/31/2025
If Amended, specify New End Date:	N/A
Solicitation/Contract/Award Number(s):	TBD
Implementing Partner(s):	TBD
Bureau Tracking ID:	Niger and Burkina Faso Youth Connect IEE https://ecd.usaid.gov/document.php?doc_id=52681
Tracking ID of Related RCE/IEE (if any)**:**	
Tracking ID of Other, Related Analyses:	

ORGANIZATIONAL/ADMINISTRATIVE DATA

Implementing Operating Unit(s): (e.g. Mission or Bureau or Office)	Sahel Regional Office
Other Affected Operating Unit(s):	USAID Niger
Lead BEO Bureau:	AFR/Bureau
Funding Account(s) (if available)**:**	Sahel Regional Office
Original Funding Amount:	$35.5 million
If Amended, specify funding amount:	N/A
If Amended, specify new funding total:	N/A
Prepared by:	Sait Mboob
Date Prepared:	

ENVIRONMENTAL COMPLIANCE REVIEW DATA

Analysis Type:	☒Environmental Examination	☐Deferral
Environmental Determination(s):	☐Categorical Exclusion(s) ☒Negative determination with conditions ☐Positive ☐Deferred (per 22 CFR 216.3(a)(7)(iv)	
IEE Expiration Date (if applicable)**:**	January 2022	
Additional Analyses/Reporting Required:	EMMP/EMMRs; WQAPs	
Climate Risks Identified (7):	Low ___2___ Moderate ___3__ High ___2___	
Climate Risks Addressed (7):	Low ___2___ Moderate ___3___ High ___2___	

THRESHOLD DETERMINATION AND SUMMARY OF FINDINGS

PROJECT/ACTIVITY SUMMARY

ENVIRONMENTAL DETERMINATIONS

Upon approval of this document, the following sub-activities under this IEE will be classified as negative determination with conditions, and become affirmed, per Agency regulations (22 CFR 216).

TABLE 1: DEFINED SUB-ACTIVITIES

Activity 1 — Youth Connect
Sub-activity 1.1 Equip youth with market-relevant skills to prepare them for livelihoods
Sub-activity 1.2: Link youth and youth cooperatives to job information, networks, financing and business coaching
Sub-activity 1.3: Engage youth and youth groups in local governance that will support their own development needs

CLIMATE RISK MANAGEMENT

The Climate Risk Management analysis identified potential vulnerabilities of the Burkina Faso and Niger Youth Connect activity.

Preparation of the activity level CRM was informed by the project level CRM completed and cleared in association with the Bridge PAD. Additional details were added in the activity level analysis to address specific interventions and to fill gaps in the project level CRM. The simplified climate risk analysis tool was used to analyze and present risks and mitigation actions in this IEE. Climate risk analyses were informed by USAID's Climate Risk Profile: West Africa Sahel. The CRM screening focused primarily on two climate stressors (i.e., increasing temperatures and increasingly variable and unpredictable seasonal rainfall) and two primary shocks (i.e., increased flooding and the increased frequency and magnitude of drought). It is important to note that three of these shocks and stresses (i.e., seasonal rainfall, flooding, and drought) are related to both climate variability and change. These shocks and stresses have the potential not only to negatively affect most interventions, but to result in differentiated and multifaceted impacts across the target zones and populations.

Because Youth Connect is partially addressing agricultural and pastoral sectors, it is sensitive to climatic stresses such as drought, variable rainfall, high temperatures, and floods. The main climate risks for the activity will be associated with direct threats (e.g., floods can wash away fields or irrigation infrastructure, reduced rainfall can limit soil productivity and soil water retention capacity, increasing temperatures can limit crop productivity and surface water retention, etc.). The screening identified 6 moderate, and 1 low climate risk categories of interventions. Through the CRM screening, mitigation measures were identified that directly mitigate these risks, although they cannot fully remove them.

BEO SPECIFIED CONDITIONS OF APPROVAL

1. Reporting Conditions: As is becoming standard throughout the region, the AFR BEO requests that the activity managers/AORs/CORs provide access to the Regional Environmental Advisor (REA) and to the AFR BEO Team to review (not approve) the Environmental Mitigation and Monitoring Plans/Reports (EMMPs/EMMRs) that will be

written to implement the findings of this IEE (see Annex 2). These should be uploaded into the appropriate sub-folder(s) of this Google Drive folder: https://drive.google.com/drive/folders/1q7HGMzgopJ-MuKxkQEJ4GSPp9R7Qzv-5?usp=sharing. This will facilitate access by all parties who need these documents, including the Mission Environmental Officer and the AOR/COR. This will allow the REA and the BEO Team to spot-check and review these documents to confirm that the mitigations seem appropriate and are cognizant of the specific design of the activities.

The negative determinations recommended in this IEE are contingent on full implementation of specified conditions and a set of general monitoring and implementation requirements specified in this "BEO Conditions" section as well as Section 5 of the IEE. Some specific conditions to highlight include:

- New activities and those revised to incorporate a change in scope or nature will require an IEE amendment to identify and address potential environmental impacts. This condition is mentioned again in Section 7 of this IEE.
- As there are WASH activities covered under this IEE, the AFR BEO requires that a water quality assurance plan (WQAP) is prepared according to the WQAP Template (https://www.usaid.gov/environmental-procedures/environmental-compliance-esdm-program-cycle/special-compliance-topics/water):
  - Complete a WQAP for WASH-related activities under this IEE, and request and receive AFR BEO review and approval of WQAP.
  - Clearly link the WQAP to this IEE
  - The review results should be written and on record in the Signing Statement of the WQAP.

IMPLEMENTATION

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

USAID APPROVAL OF INITIAL ENVIRONMENTAL EXAMINATION

PROJECT/ACTIVITY NAME: Youth Connect

Bureau Tracking ID: _____

Approval:	Peter Trenchard, Mission Director	2/27/2020 Date
Clearance:	Cleared by e-mail Sait Mboob, AOR	Date
Clearance:	P/ Katherine Reniers, Program Office Director	2/25/20 Date
Clearance:	Abdourahamane Ndiaye, Mission Environmental	2/20/2020 Date
Clearance:	Samantha Wapnick, Regional Environmental Advisor and Climate Integration Lead	02/20/2020 Date
Clearance:	Cleared Colin Quinn, Bureau Climate Integration Lead	3/9/2020 Date
Concurrence:	Brian Hirsch AFR Bureau Environmental Officer [*required*]	3/12/2020 Date

DISTRIBUTION:

- Zeric Smith, Sahel Regional Technical Office Director
- Kevin Armstrong, Acting Niger Country Representative
- Ali Ezzatyar, Regional Legal Officer
- Cory Johnston, Burkina Faso Country Representative

INITIAL ENVIRONMENTAL EXAMINATION

CONTENTS

1.0 PROJECT/ACTIVITY DESCRIPTION

1.1 PURPOSE OF THE IEE

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

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

1.2 PROJECT/ACTIVITY OVERVIEW

The five-year Youth Connect activity is focused on developing improved skills and economic opportunities for young women and men in Niger and Burkina Faso. The Youth Connect activity is one of several activities supporting USAID's Bridge Project, devoted to addressing the development challenges at the nexus of countering violent extremism and resilience and building economic opportunities for youth in the Sahel. Youth Connect therefore serves as one of several complementary activities that together form a comprehensive approach to addressing the multiple factors that impact these development challenges.

1.3 PROJECT/ACTIVITY DESCRIPTION

The theory of change for Youth Connect is as follows:

If youth, and particularly vulnerable youth (as defined in the targeting section above) have market-demanded technical and soft skills; access to jobs and markets via private sector partnerships, market information, and networks; access to financing; and the capacity to participate in community decision-making,

Then youth assets and agency will improve, increasing strategic economic opportunities, thereby reducing youth's support of violent extremist groups, and reducing young people's vulnerability to recruitment and exploitation by extremist groups.

Within the framework of Youth Connect's theory of change, the goal of this activity is to improve the assets and agency of vulnerable young women and men in targeted communities. In order to implement this approach, the activity has the following three objectives:

1. Equip youth with market-relevant skills to prepare them for livelihoods;
2. Link youth and youth cooperatives to job information, networks, financing and business coaching; and
3. Engage youth and youth groups in local governance that will support their own development needs.

Objective 1

Interventions under Objective One will address the multiple skill needs of youth beneficiaries to prepare them for embarking or improving upon their livelihoods. Targeted youth will have diverse needs and profiles - for example, self-employed youth includes both subsistence-level self-employed individuals, and those who engage in more productive or transformational entrepreneurship through the micro- or small enterprises they develop. Training will be tailored to these two groups' different needs.

Objective 2

Aside from the limited job opportunities in Niger which USAID seeks to address through other programs, the constraints that youth in Tillaberi face in their ability to earn income or improve their earnings are:

1. Challenges accessing reliable information about jobs, credit, markets and networks,
2. Lack of business support to launch or strengthen existing businesses, and
3. Difficulty accessing finance.

Interventions under Objective 2 will not only to provide youth with information and services, but to result in job placement and other income generating activities. The emphasis will be on offering services through existing local entities and structures (including communal leaders and governance structures) as much as possible in order to foster greater sustainability. Objective 2 will also facilitate access to financing for different types of youth beneficiaries.

Objective 3

Objective 3 will support interventions that help youth participate more effectively in village, commune, and national governance in order to increase their role in shaping activities that respond to their needs and interests. Specifically, the activity will help youth to organize and lobby for local and national policies, investments, and actions that support greater livelihood opportunities for youth in connection with the activities and opportunities pursuant in objectives 1 and 2.

TABLE 2: DEFINED SUB-ACTIVITIES

Activity 1 — Youth Connect
Sub-activity 1.1 Equip youth with market-relevant skills to prepare them for livelihoods
Sub-activity 1.2: Link youth and youth cooperatives to job information, networks, financing and business coaching
Sub-activity 1.3: Engage youth and youth groups in local governance that will support their own development needs

Will this project/activity involve construction[1] as defined by ADS 201 and 303? Yes☒ No ☐

If yes, describe in the space below:

- Construction and operation of latrines and hand washing stations.
- Construction and operation of wells, boreholes and small water systems.

[1] **Construction, as defined by ADS 201 and 303,** includes: construction, alteration, or repair (including dredging and excavation) of buildings, structures, or other real property and includes, without limitation, improvements, renovation, alteration and refurbishment. The term includes, without limitation, roads, power plants, buildings, bridges, water treatment facilities, and vertical structures. In the box below, describe any construction planned for this project/activity. Refer to ADS 201maw for required Construction Risk Management procedures.

- Construction/Installation of small-scale renewable energy sources/infrastructure systems.
- Construction, rehabilitation or upgrading of infrastructure and building structures <1,000m^2, including, but not limited to, produce collection and marketing structures, transport hubs, post-harvest storage structures, animal housing structures, and other small structures.

2.0 BASELINE ENVIRONMENTAL INFORMATION

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

Name after the Niger River, Niger is mostly covered by the Sahara Desert and has a land area of 1.267 million square kilometers. Activities under this effort will be mostly in rural areas with some peri-urban investments.

Niger's Climate Risk Profile summarizes climate vulnerabilities and risks to USAID food security programs but can more broadly applied to the Youth Connect zone of influence. Niger is one of the hottest countries in the world and has three basic climatic zones: the Saharan desert in the north, the Sahel to the south of the desert, and the Sudan in the southwest corner. The dry season is November through May with a short rainy season in August. The intense heat of the Saharan zone often causes the scant rainfall to evaporate before it hits the ground. The Harmattan winds blow from the northeast and cause dust storms from November to March. Temperatures in the south average 30 degrees Celsius.

Only one-fifth of the total land mass is savanna in Niger and is suitable for livestock or limited agriculture. As a result, the populace is concentrated in the far south along the borders with Nigeria and Benin. Crop production is primarily rainfed so erratic rainfall and decreased rainfall affects production. Additionally, high winds can erode topsoil, reducing overall fertility, and causing damage or stress to vegetation during storm events. These climate threats also affect the livestock/pastoralist sector. Rangeland can be degraded by high winds and low rainfall. Areas that are still producing fodder during dry periods also may be overgrazed and degraded due to overuse. Conflicts may arise over access rights.

Niger's agricultural sector represents about 43 percent of GDP. An estimated 35 percent of total land is used for agricultural purposes, but about 12 percent is arable land, 0.1 percent permanent crops, and 23 percent is permanent pasture. As of 2012, roughly 1000 sq km of land is estimated to be under irrigation. Crops in Niger are extremely vulnerable to water and wind erosion. Agricultural crops grown in Niger include cowpeas, cotton, peanuts, millet, sorghum and cassava and sugarcane and tobacco with important exports being onions, beans and vegetables and rice.

With so much of Niger's land unsuitable for crops, there is a particularly heavy dependence on livestock, which accounts for around 15 percent of GDP and supports 29 percent of the population. The majority of the livestock; camels, cattle, sheep, and goats, are held by pastoral nomads, the Tuareg (11 percent of the population) and the Fulani (6.5 percent of the population), who use range across the savannahs and into neighboring countries. Niger relies on its livestock sector for income and food security, the main market being its neighbor, Nigeria. As Nigeria's population continues to grow, demand for meat is also increasing - an opportunity for further development in Niger's livestock industry.

Niger consumes 99 percent of the poultry it produces, with chickens accounting for 58 percent of the poultry and the rest being local varieties of poultry. In Niger, chicken meat consumption is lower than in Burkina Faso or other parts of West Africa at 1.5 kg per capita per year (5.1 kg for West Africa on average).[12] Systems tend to be extensive free-range systems with low inputs and potentially some water and low grade grain supplements in the dry season. Guinea fowl eggs are an important resource during the rainy season. Intensive operations comprise 3 percent of the poultry flock, with four main state-owned centers. These operations serve as large-scale day old chick providers to facilitate development of the poultry industry in the private sector.

The Niger River flows through the south west corner of Niger and there are extensive fossil groundwater resources. But the river can dry up completely at Niamey, and most aquifers are deeply buried and non-renewable. In the northeast, Niger shares Lake Chad with Nigeria, Chad and Cameroon. The size of Lake Chad greatly varies seasonally with the flooding of the wetlands areas.

The most recent data suggests that in Niger**,** 58 to 62 percent of the population has access to water sources. Around 41 percent of the population has access to sanitation facilities and about 11 percent has access to improved facilities. An estimated 63 million people do not have access to improved drinking water sources and 100 million people lack access to basic sanitation facilities. While people in urban areas have access to water, people often purchase water from vendors and carry it long distances in containers. In rural areas, only about 42 percent of households have access to improved water sources. Some World Bank sources suggest that private water companies lack incentives to modernize rural water systems. Other sources have found that even when new water systems are installed, as many as 30 percent fail within the first year. In rural areas 61 percent of the population lives more than 30 minutes away from a functioning water source and 34 percent live more than 2 hours away.

Irrigation in Niger is practicable only along the water courses, making affordable and efficient irrigation systems an area of interest for investment. The renewable water resources that may be available for improved irrigation systems include 31 billion m_3 of surface water and 2.5 billion m_3 of groundwater. The Millennium Challenge Corporation Niger Compact will invest a portion of $254 million into access to water for agriculture and livestock. In 2013, the estimated cost of developing new lands with total water control was $30,000/ha and the cost of physical rehabilitation was estimated at $8,000/ha. The estimated cost for smaller scale irrigation projects is much lower, at $8,000/ha for new systems. Operating costs for these lands may vary based on the type of irrigation system. Estimates ranged from $30/ha in gravity systems in the Tahoua region to $120-240/ha for surface irrigation systems that require pumping water near the Niger River. The totally controlled water areas monitored by the National des Amenagements Hydro-Agricoles have demonstrated positive results including increased cultivation of rice, a major agricultural staple.

Burkina Faso

In Burkina Faso, the USAID ZOI is a semi-arid region, that experiences limited rainfall, food insecurity, and other climate shocks such as droughts, floods, heatwaves and dust storms. The population growth rate is high, predominantly impoverished and a large agricultural workforce, where agriculture employs 80% of the working population and accounts for about 34% of GDP.[2] Burkina Faso has pronounced wet and dry seasons, with a two-month wet season in the northern region starting in June/July and a dry season bringing dust “Harmattan” winds from the northeast in December through March. During the dry months and chronic droughts in northern Burkina Faso, rivers and waterways are not available year-round, exacerbating water scarcity and lower crop yields contributing to food insecurity and malnutrition.

Burkina Faso population is growing rapidly. As of 2017, Burkina Faso has an estimated 3 percent population growth. Population growth combined with weak health infrastructure, persistent food insecurity, and a lack of access to essential services creates a series of food insecurity challenges. In addition, there is a notable lack of educational and economic opportunities. Rural areas lag behind urban areas in terms of health and educational outcomes and there is a significant gender disparity across both urban and rural areas. Adult literacy rates in Burkina Faso

[2] Climate Risks in Food for Peace Geographies: Burkina Faso USAID Climate Risk Profile.

are estimated to be between 29 and 36 percent. Average life expectancy in Burkina Faso is 56 years. The country has a total fertility rate of almost 6 children per woman and more than 65 percent of the population is under 25.

Cultural norms favor education and employment for boys and men and contribute to a lack of opportunities for girls and women. An estimated 52 percent of girls are married by age 18.[3] The maternal mortality rate is 371/100,000 live births and the rate of contraception use is only 26 percent as of 2016. As of 2012, an estimated 33 percent of children were stunted while 24 percent of children were underweighted and 6 percent were severely underweight.

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

Niger

Constitution and Regulations. In light of the climate and ecological characteristics and the overall reliance on agricultural and pastoral livelihoods by 80 percent of the country's population, natural resources management and environmental protection is one of the top priorities of the Nigerien government. The local governance of natural resources is well-defined in the Government of Niger "Strategy for the Accelerated Reduction of Poverty (2008) and the Rural Development Strategy". The Government of Niger has enacted the following laws governing the natural resources management and environmental protection:

- "Executive Order no 98-56" related to environmental management and bio-diversity conservation;
- The executive convention to fight against desertification;
- The law for the protection of fauna and the management of wetlands;
- The Environmental Code;
- Law 1971 017 governing fishing;
- Law 2004-040 governing forestry; and
- "Executive Order no 93-014 governing water systems.

Oversight Bodies - The National Council for Sustainable Environmental Development, a Ministry-level agency in charge of environment, a permanent secretariat for the rural code and its decentralized services, has oversight of natural resources management and environmental regulation. The rural code on environmental issues has two components: one is juridical and the other is institutional. The juridical one is defined by "Executive Order 93-015" and its legislative and statutory texts. The institutional component includes the National Committee of the Rural Code-15 and its Permanent Secretariat, the departmental land tenure commissions, the communal land tenure commissions and community-based land tenure commissions. Niger is also member of and implementing the United Nations Framework Convention on Climate Change, the protection and conservation of water and water resources and maintaining environmental health, as well as the prevention of natural disasters. Niger is also member of other regional and sub-regional agreements on environmental protection and the fight against desertification.

[3] https://www.girlsnotbrides.org/child-marriage/burkina-faso/

Conservation and Forestry - Although Niger is a signatory of many international treaties, including Convention on International Trade in Endangered Species of Wild Fauna and Flora and Convention on Biological Diversity, the country's capacity to implement treaty or convention agreements is weak due to a lack of information given to key government stakeholders and a lack of resources. Commonly, government agencies look to NGOs or development cooperation agencies to collaborate and/or coordinate activities and actions related to treaties/conventions. More detailed information can be found in the Tropical Forests and Biodiversity assessment for Niger.

Land tenure - The Rural Code is a key element of the Nigerien national policy on rural land tenure and the management of natural resources. It hinges on a legal system (composed of all the rules and regulations concerning land tenure and natural resources management) and an institutional system (a group of institutions that implement and monitor those rules). The two systems apply at different levels, from the local level to the national one. The Rural Code consists of a series of legal texts; the 1993 ordinance (ordonnance cadre) containing its guiding principles and sector-specific legislation. At the national level, the National Committee of the Rural Code defines global policy guidelines for the State.
It is chaired by the Ministry of Agriculture and includes other ministries involved in the management of land and natural resources. The rural agricultural zone is the part of the national territory located south of the limit for cultivation as defined by the 1961 Law. The private property system applies to this area. Land property can be acquired through custom or positive law. When no ownership rights can be established, the land is considered vacant and belongs to the State or to decentralized local institutions. The Ministry of Agriculture (Ministère de l´Agriculture) is responsible for the preparation, implementation, and monitoring of the national policy on agricultural development. The rural pastoral zone is the part of the national territory located north of the limit for cultivation defined also by the 1961 Law. It belongs to the State. The rights of pastoralists (who own or keep cattle) include free access to natural resources in the pastoral zone, they hold a common use right for this zone. Ministry of Livestock (Ministère de l´Elevage du Niger) ensures the development and promotion of livestock through the design, development, and implementation of the national policy for productions development, the animal industries, and the national animal health policy.

Climate Adaptation Planning. To limit the impacts of climate change in Niger, the country's National Adaptation Plan (NAP) is being developed, as highlighted by the 'stocktaking activity and recommendations' conducted in 2014 to prepare for the NAP. Niger released their Second National Communication on Climate Change to the United Nations Framework Convention on Climate Change in 2009 and their Third National Communication on Climate Change in 2016. These documents guide climate change mitigation commitments from the country and highlight climate change adaptation needs.

Water regulation and management. Water is a strategic resource and constitutes state property. Rivers, lakes, ponds, sources, and groundwater are therefore considered state property. The ministries of environment and water (Ministère de l´hydraulique et de l´environnement) are responsible for the design, development, implementation, and monitoring and evaluation of national environment and water policies and combating desertification. They are specifically

responsible for defining and implementing policies and strategies relating to water, forest, wildlife, fisheries, and apiculture resources.

Burkina Faso

Constitution and Regulations.[4] Burkina Faso's constitutional, legislative and regulatory frameworks address environmental protection and natural resources management. The constitution approved on June 2, 1991, accords a special importance to and includes a number of provisions for the protection and management of the environment:

> *Article 14* of the constitution asserts that the natural wealth and resources belong to the people. *Article 29* recognizes the right to a healthy environment and states that the protection, defense and promotion of the environment are a shared duty.
>
> *Article 101* defines legal authority and responsibility of the state towards protection of the environment. The Environmental Code (Act No. 05/97/ADP of 30 January 1997) sets out basic principles to preserve the environment and improve the quality of life in Burkina Faso. It defines what are considered to be pollution-causing actions, pollution control and provides penalties for violators. Burkina Faso's 2007 national environmental policy, "*Politique Nationale en Matière d'environnement"*, is the main strategic policy framework. It sets out the national framework and plans for the sustainable management of natural resources and the environment. It has not yet been operationalized, but the government plans to do so in conjunction with several other recently developed key programs and policies.
>
> In 2008, the government signed a decree (No. 2008-125/PRES/PM/MECV) specifying the creation and organization of environmental units that would be placed within the various ministerial departments and government enterprises as a way to ensure that environmental concerns are integrated into plans, policies and actions at different levels of government.

Oversight Bodies. The Ministry of Environment is the principal government department in charge of the design, coordination and implementation of national environmental policy. The ministry is responsible for promotion and coordination of actions to combat desertification; protection of forests and wildlife; promotion of environmental assessments and environmental education, compliance with environmental conventions, and pollution prevention and control. The Ministry of Environment, the Ministry of Agriculture, and the Ministry of Water & Water Resources are responsible for the implementation and enforcement of legal provisions that apply to land, forestry, wildlife, fishery, water, agricultural and livestock systems. Measures, in addition to the Environment Code, that directly apply to environmental conservation include Agrarian and Land Reform, Forestry Code, Mining Code, Water Code, and traditional and customary regulations (traditional hunting and fishing, sacred woods, taboos).

Burkina Faso is party to international agreements on Biodiversity, Climate Change (Kyoto Protocol), Desertification, Endangered Species, Hazardous Wastes, Law of the Sea, Marine Life Conservation, Ozone Layer Protection, and Wetlands.

[4] 2017 USAID ASTER IEE on Burkina Faso. http://gemini.info.usaid.gov/repository/pdf/50407.pdf

The Environmental Code provides (in *Article 17*) that activities likely to have significant effects on the environment are subject to prior review by the Minister of Environment based on an EIA study or other evaluation document. The EIA implementation procedure is burdened by weak capacities of national actors and a low level of enforcement. Sector guides are currently under development to help facilitate the understanding and approval of the procedure. Local human resources for assisting with the EIA process are available via the Burkina Faso National Association of EIA professionals.

Law No. 006-2013/AN (Loi n°006-2013/AN portant code de l'environnement du Burkina Faso) of 2 April 2013 provided the Environmental Code of Burkina Faso and repealed Law No. 005/97/ADP (Loi nº 005/97/ADP portant Code de l'environnement au Burkina Faso) of 30 January 1997.

The new Environmental Code aims to protect people against the threats caused by the degradation of their environment and to improve living conditions. It states that promoting a healthy environment is of general interest and the responsibilities of all individuals. It further states that maintaining environmental quality and the restoration and enhancement of natural resources must be based on the principles of participation and public information, prevention, precaution, polluter pays, sustainable development, and subsidiarity. It recognizes the rights of local populations, civil society, and the private sector to participate in the management of their environment and it enshrines a right to use natural and genetic resources for local people and the sharing of benefits arising from their exploitation.

Conservation and Forestry: Burkina Faso has several laws, policies and strategies around the Legal Framework affecting conservation and forestry. The most relevant laws and policies are described in an International Union for Conservation of Nature (IUCN) report called "An IUCN situation analysis of terrestrial and freshwater fauna in West and Central Africa". The report identifies and describes the main institutional laws, policies, and strategies regulating the country's aim to conserve and search for sustainability. The country is also a member on several international agreements, treaties and conventions such as: Convention on International Trade in Endangered Species of Wild Fauna and Flora, United Nations Framework Convention on Climate Change, and United Nations Convention to Combat Desertification just to name a few. More detailed information can be found in the Tropical Forests and Biodiversity Analysis for Burkina Faso.

Climate Adaptation Planning: Burkina Faso's resilience to climate change is guided by the country's 2015 National Adaptation Plan (NAP), which aims to "(i) reduce vulnerability to the impact of climate change by developing adaptation and resilience capabilities; (ii) facilitate the integration of climate change adaptation into new or existing policies, programs or activities and in specific development planning processes and strategies in pertinent sectors and at various levels in a coherent manner." In addition, the Second National Communication of Burkina Faso on Climate Change to the United Nations Framework Convention on Climate Change highlights climate mitigation commitments of the country and sector specific climate risks and adaptation measures.

Water Resources: In Burkina Faso, the National Office of Water and Sanitation (ONEA) serves most urban areas and some rural areas. As of 2008, urban areas were reasonably well serviced by ONEA whereas rural areas were underserved. In 2003 the country adopted an action plan for integrated water resources management. This plan indicated a shift towards a decentralized water system. Following up on that plan, in 2004 Burkina Faso adopted the General Charter of Territorial Collectives (CGCT). The CGCT gave responsibility for rural water supplies to local communities. While there is legal infrastructure in place to address the lack of water resources in rural areas, some challenges to implementation over the past two decades have included a lack of technical assistance to implement the plans. In addition, there have been conflicting interests between the different parties responsible for increased rural water access.

Land tenure policy: After independence in 1960, land management in Burkina Faso was primarily left to customary institutions and governed according to customary law. The government's role was restricted to management of classified or protected land. The basis for the country's modern statutory system is the Réorganisation Agraire et Foncière, introduced in 1984 and amended in 1991 and 1996, which helped to develop a private property rights regime for land. The legislation vested all land in the state, regardless of customary tenure status, and outlawed all land sales in an attempt to make a clean break with customary rights. Citizens would henceforth be able to gain access to land through government rules of access, thus ending the power of traditional chiefs. Its interpretation in rural areas was that land belonged to whoever was cultivating it, regardless of customary rules. Amendments allowed them privatization of land, recognized use-rights and long-term leases, and enabled the state to cede land to private operators.

The legislation also created a national village land-use management program that operates Commission Villageoise de Gestion des Terroirs (CVGTs), village-level representative committees responsible for land management. These bodies were intended to represent the village by bringing together customary leaders and members of underrepresented groups in committees. In practice, however, CVGTs have not realized their purpose, as the Réorganisation Agraire et Foncière is commonly superseded by customary systems at the village level. The commissions are more often associated with donors or viewed as State projects, rather than as belonging to the community. Another local body that plays a role in land management is the Conseil Villageois de Développement (CVD), which is tasked with managing and resolving conflicts and 'finding solutions to land tenure problems' according to the 2004 Code Général des Collectivités Territoriales (2004 Decentralization Code). Both CVGTs and CVDs are evidence of Burkina Faso's push for decentralization, which has sought to transfer management responsibilities over land to local bodies.

Rural Land Tenure Law. The latest development in this process was the adoption of the new Rural Land Tenure Law (Act. No 034) in June 2009 following a long, transparent, and inclusive process. The goals of the new law include:
1) ensuring equitable access to rural land;
2) promoting investments in agriculture, forestry and pastoralism in Burkina Faso;
3) reducing poverty in rural areas; and
4) promoting sustainable management of natural resources.

In addition, the new law is meant to protect property rights, prevent and manage land conflicts, and build a framework for ensuring rural land tenure security. The law furthers decentralization in Burkina Faso and codifies principles of customary rights by enabling communities to draft Chartes Foncière Rurale (Rural Land Charters), which are local conventions based on customary land uses. These land charters contain rules relating to conservation or shared natural resources, the process of giving and receiving land loans, and land dispute management. The new law provides the governing framework for the land charters, which vary according to local needs and customs to reflect the diversity of Burkina Faso's people and ecosystems.

Local land charters are created at the village level in a participatory manner that includes a representative group of stakeholders (including women, forest users, pastoralists, and youth), and is aided by the state. They are adopted at the village level, validated at the municipal court, and recorded in the register of local land charters.

The 2009 law also enables legal recognition of individual and collective land rights, the transfer of certificates of rural land possession through inheritance, oral and written rural land leases, and the creation of local land management institutions. These bodies include:
• Service Foncier Rural (Rural Land Service), a national institution represented in each community;
• Commissions Villageoises Foncière (Village Land Commissions);
• and 'local consultative bodies for land-related matters' in rural municipalities.

The Rural Land Service and Village Land Commissions are designed to work together to maintain public spaces and common areas, secure individual land tenure rights, and prevent disputes. The 2009 law created the Attestation de Possession Foncière Rurale (AFPR) (or Rural Land Possession Certificate), which can be granted to individuals and associations. This replaces the previous practice of issuing 'minutes of palaver' that affirmed rights to land usage. In the new system, certificates can be obtained within 75 days if no objections are raised. Any property owner may request an individual certificate or recognition of possession by submitting an application to the Village Land Commission (these may be made orally). The commission forwards it to the Rural Land Service, which checks that no possession or property title has been previously established on the parcel in consultation with local customary and traditional authorities.

The rural land possession certificate is then prepared for the Mayor's signature on behalf of the applicant. In the case that there are competing claims to the land, the case is referred to the Commission de Conciliation Foncière Villageoise, which reviews it for up to 45 days through local-level consultations. Only if this is unsuccessful is the case referred to the local court, or tribunal de grande instance. AFPRs differ from full land ownership titles in that they confer the right to use undeveloped land; they entail rights of usufruct (use and profit), but not abusus (alienation1). AFPRs may be used to obtain bank loans, depending on individual bank requirements and can be loaned, donated, rented, or passed on to the next generation.

Local consultative bodies must include members of development committees, traditional land chiefs, representatives of state and local government, representatives from women's groups, and technical experts. Mayors and prefects also take part in conflict resolution relating to land disputes. However, these groups can only examine and issue reports and suggestions. Most groups with customary claims over land also have a Land Chief, who has a connection with the ancestors who initially approached the local spirits of the land. The Land Chief stands as a symbol of the inalienability of that group's right to land. The 2009 law sets forth the framework for addressing land disputes, stating that parties should first attempt to resolve the situation with local authorities, per procedures in the local land charter. The law gives local authorities a 45-day period, which may be extended once, in which to reach conciliation between the parties. Addressing the courts and initiating litigation should only be used as a last resort.

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

No government-to-government agreements are planned; hence there have been no assessment of the partner government's environmental capacity analysis. This section is not applicable.

3.0 ANALYSIS OF POTENTIAL ENVIRONMENTAL RISK

TABLE 3A: POTENTIAL ENVIRONMENTAL RISKS ASSOCIATED WITH SUBACTVITY 1 EQUIP YOUTH WITH MARKET-RELEVANT SKILLS TO PREPARE THEM FOR LIVELIHOODS

Defined intervention types under Sub-activity 1	Potential environmental and social impacts
Organizational and individual capacity building: Functional literacy and business training, organizational management strengthening, women and youth empowerment	These organizational and individual capacity building will be on topics that do not have a direct impact on the environment.
Studies and analyses: value chain and market assessments, economic analyses, impact study of literacy program, nutrition pathways analyses	These activities are not expected to have any direct negative impact on the physical, biological or social environment. Any recommendations emerging from these analyses will relate to activities covered under other aspects of this risk assessment. For example, studies on value chains related to livestock could lead to actions that are undertaken in support of livestock production – those risks are described below under "enhanced livestock production." Studies that relate to agricultural processing are covered under the analysis below on "improved agricultural harvest and post-harvest practices." In other words, any direct actions influenced by these studies are described elsewhere in this table and will be mitigated under their respective conditions.
Support to agricultural and livestock value chains	**Improved inputs and innovative technologies in agriculture processing, storage, and marketing.** The building of better business models through strengthening linkages and creating models for organization among and between farmers, traders, exchanges, and small and medium enterprises (SMEs) has implications on long-term natural resource management and sustainability. Most notable is the environmental soundness of farm-level agricultural practices given the potential for significantly increased demand. The increase in demand could lead to the expansion of agricultural lands and contribute to deforestation or continued environmental degradation, in addition to the other associated impacts of agriculture. By coupling the actions to efforts for sustainable resource conservation and linking farmers to higher quality services, much of the environmental impact will be ameliorated. However, failure to create these connections and build them into learning and capacity building objectives may result in accelerated environmental harm, on-farm, at the farm gate or in processing. **Private sector support for enterprise development.** An increase in agricultural financing and private sector support for inputs has the potential to impact NRM and environmental health (e.g., through expanded use of inputs [fertilizers, pesticides] and mechanization [power tillers, water pumps, etc.]). The development of the agricultural inputs value chain, including identifying and relieving bottlenecks to marketing of agricultural inputs, presents a range of potential negative impacts, as determined by the particular input. The increased availability of

	various pesticide inputs can lead to the mishandling and misuse/ misapplication, presenting a profound risk to human and environmental health. While less potentially harmful to human health, the misuse of fertilizers presents distinct risk to the natural environment, with ground and surface water resources most vulnerable to 'nutrient loading' through over-application and poor management of agricultural run-off. Additionally, support for agricultural inputs and the expansion of agriculture in the region will increase demands on potentially limited water resources. Increased extraction of water for irrigation from shallow or deep wells, or from river diversion can reduce the quantity and quality of surface or groundwater, with adverse impacts on ecosystems, downstream users, and other users of the aquifer.
Enhanced livestock production	The use of cattle, sheep, goats, pigs, poultry, and other livestock offer many benefits to the growing global population and millions of farmers in the developing world. These animals are integral to rural livelihoods and local cultures, providing food (meat, eggs and other dairy products), materials (wool, hide, horns, etc.), income, and mechanical power for pulling carts, drawing water or plowing fields. Properly managed, livestock production can enhance land and water quality, biodiversity, and social and economic well-being. However, when improperly managed, livestock production may cause significant economic, social and environmental damage. Increasing livestock production has the potential to increase environmental harm. **General.** Livestock actions, in general, can be associated with the following environment impacts: ● *Land degradation.* Adverse impacts of livestock are associated with overgrazing and use of marginal lands, soil erosion and compaction, land degradation and diversification, loss of natural habitats and resulting losses of biodiversity. ● *Loss of biodiversity.* Breed has a strong influence on disease susceptibility and therefore on disease management. Systematic livestock production may result in loss of genetic diversity in livestock species and subsequent susceptibility to disease outbreaks. An uncontrolled introduction of new breeds (live animals or through artificial insemination) could also cause a gradual disappearance of local pure breeds if the crossing is not well controlled. ● *Water pollution.* Contamination may occur if nutrients from manure enter the water table because they are either improperly used or disposed of. Water pollution can also be associated with improper processing and disposal of dead animals that release nutrients into the ground water as they decompose. Animal manures transported from fields, pens or feedlots into water bodies through rainfall, runoff or irrigation can pollute local drinking water sources and spread human and animal diseases.

	● *Air pollution.* Livestock production can increase greenhouse gas emissions from enteric fermentation, from livestock manure and burning of animal carcasses. ● *Social impacts.* When policies do not consistently address the land tenure issue for farmers and pastoralists, livestock keepers may potentially increase animal stock beyond land carrying capacity, thus contributing to enhanced competition for resources, and eventually, to conflicts that can become violent. ● *Animal transmitted diseases.* A zoonotic disease is an infectious disease that is transmitted between species from animals to humans (or from humans to animals). Animal transmitted diseases such as Brucellosis, Giardiasis and Ringworm (Dermatophytosis) that are transmitted from animals to people are widespread in Africa. Animal mobility through transhumance could also be a factor in the spread of disease if the animals are not vaccinated. ● *Spread of invasive species.* Many herbaceous species spread easily through animal hair. Thus, the movement of animals through transhumance could also be a factor in the spread of these invasive species. ● *Use of veterinary pharmaceuticals and associated waste.* Livestock operations typically involve periodic use of injectable pharmaceuticals, resulting in small quantities of hazardous medical waste; and topical use of pesticides to control parasites which present risks specific to the products being used. Veterinary pharmaceutical waste may lead to contamination of air, water, and soil which may affect all forms of life including human life.
Agricultural production and related actions that include: - Training and capacity building (both field and classroom) and demonstrations; - Technical assistance (consultations, advisory, demonstrations and extension services) - Agricultural research – for example seed demonstration or not on research stations - Introduction or strengthening use of techniques and technologies, including but not limited to tillage, no-tillage, cover cropping, rotation, mixed cropping, and irrigation (for purchase or	**Land conversion and change of landscapes.** Clearing of land for agricultural production actions can contribute to change and fragmentation of landscape isolating animal populations and altering microclimates at forest edges. Agricultural actions can contribute to deforestation, grassland degradation, encroachment into marginal lands, such as hills, wetlands, shallow lakes, and protected areas and adversely impact biodiversity and natural habitats. **Impacts on all live organisms.** Changes in natural habitat and use of agricultural inputs including toxic substances has impact on all live organisms including on people's health. **Loss of vegetation.** Agricultural actions and home gardens may lead to the expansion or creation of additional agricultural lands, potentially through the clearing of forests or brush. Clearing of pristine or fully-grown forest can result in increased erosion, loss of biodiversity, decreased rainwater infiltration into aquifers, and increased soil temperatures. Where agricultural lands are expanded, vegetative strips may be destroyed or non-existent. Vegetative strips offer significant ecosystem benefits to farm systems especially in reducing wind speeds, serving as a barrier to pests, capturing overspray of pesticides, creating buffer to surface water systems to capture fertilizer, pesticides, and irrigated water runoff among others.

installment of irrigation schemes or equipment - Field crops and fodder production - Home gardens: support for establishing and maintaining - Fruit tree production and establishing tree nurseries	**Introduction of new plant diseases**. If plant material (seeds, cuttings) is introduced without good phytosanitary control, new diseases could be introduced if the material is contaminated. **Introduction of non-native species.** Unconsidered introduction of crop, mono-cropping, agroforestry and cover crops, hedges, and windbreaks, riparian buffers and other intentionally introduced non-native species that are new to a given ecological zone present risks that the species will be disruptive or invasive. Introduced exotic species may spread diseases, out- compete native species for resources, become feral, act as predators or pests, or interbreed with native species. **Soil erosion.** Unsustainable practices—such as badly managed open-furrow agriculture, crops grown in the wrong way or place, deforestation, or draining wetlands—can all cause soil erosion. As the soil erodes, less rainfall is absorbed and the excess runs off. This runoff removes the fertile topsoil necessary for crop production and can have serious off-site consequences, including gully formation, landslides, siltation and sedimentation of water bodies, downstream flooding, and damage to productive infrastructure. Wind erosion can have significant impact on soil erosion in many areas. **Reduction in soil fertility.** Soil fertility is dependent on three major nutrients (nitrogen, phosphorous and potassium), various trace elements, and organic matter content. A productive soil contains sufficient quantities of each of these elements, which are slowly removed by repeated cropping without adding fertilizers; leaching due to rainfall; short fallow periods; and burning of crop residues. The subsequent decline in soil fertility often occurs in conjunction with soil erosion, with each problem exacerbating the other. **Siltation of water bodies.** Eroded topsoil is carried by runoff into water bodies. Once in the slower-moving water, the soil settles, altering the terrain, water depth and water clarity, which can harm fish and bottom-dwelling populations. Siltation can intensify downstream flooding by reducing channel capacity and can also fill the upstream areas behind a dam. One remedy for siltation, dredging, is an expensive process that must be repeated at intervals. Siltation in wetlands and coastal areas can reduce productivity and marine populations. Large-scale siltation impairs shipping and river transport, flood control, the efficiency of dams, fisheries and aquaculture, urban sewage treatment, and drinking water supplies. **Reduction in water quality.** Incorrect application of agrochemicals, fertilizers or manures can migrate from a farmer's field to local water sources, causing environmental harm and adversely affecting human health and actions.[5] Nutrients from fertilizers can also cause nutrient loading in local water bodies, resulting in degraded water quality, reduced wildlife, fish and mollusk populations, and toxic algal blooms. Moreover, such reductions in water quality can impact

[5] The impacts of pesticides on the environment are discussed in USAID's Sector Environmental Guidelines available at https://www.usaid.gov/environmental-procedures/sectoral-environmental-social-best-practices/sector-environmental-guidelines-resources in the agriculture, pesticides, and IPM sector chapters.

	other uses of water bodies as well, such as drinking water, sanitation, fishing, aquaculture, recreation and tourism, and other farms. **Reductions in surface & groundwater quantity.** Excess extraction of water for irrigation from shallow or deep wells, or from river diversion can reduce the quantity or surface or groundwater, with adverse impacts on ecosystems, downstream users, and other users of the aquifer. **Pilot studies and demonstration plots**. Certain pilot studies may have limited environmental impact due to the controlled scale and monitoring of the activity. However, demonstration sites, or pilots for the broad dissemination of new practices, can have far-reaching, cumulative impacts. If the potential impact of the pilot study is not carefully identified and measures are not taken to transfer the skills to mitigate impact in translation projects, there can be increased environmental damage. Additionally, the inappropriate siting of pilot studies or demonstration projects can lead to significant adverse impacts. Siting near streams or water bodies increases substantially the risk of contaminating surface water resources with agrochemicals. While unlikely to be significant at small scale, these impacts can scale up as the physical size of these facilities increase. **Training Demonstrations of Ag. Practices Including Extension**: Extension services are critical information resources for farmers and agents and are extremely influential in teaching techniques and influencing local farmers. Extension services can be diverse in nature including production in traditional agriculture, soil and water conservation measures, livestock and animal husbandry, and aquaculture. Extension programs that apply a “package” of new approaches and technologies over large, diverse areas result in sub-optimal or even incorrect techniques for parts of the range of conditions. While extension services provide information, their instruction has direct impact on the physical practices farmers utilize. The agents likely do not have direct control on what the farmers do with their knowledge, but the extension services can promote environmentally sound and climate resilient interventions. Maladaptive or inappropriate farming techniques, promoted by extensions, can have an environmental impact that is broad from over application of fertilizer, soils loss, water contamination and drawdown of aquifers. These impacts would be similar to those for general agriculture. Certain controlled pilot studies may have very limited environmental impact due to the controlled scale and monitoring of the activity, and only those with controlled parameters and monitored regularly are excluded from further analysis. However, actions which serve as demonstration sites or pilots with the intent to disseminate practices can have a much broader reaching, cumulative impact. If the pilot’s impact is not carefully identified and measures taken to transfer the skills to mitigate impact in translation projects, there can be far reaching and multiplicative environmental damage. Inappropriate siting of pilot studies or demonstration projects can lead to significant adverse impacts. For example, if sited in

	protected areas, substantially intact forests, or other valuable ecosystems, the land clearance itself can have significant adverse impacts. Siting too close to streams or water bodies increases substantially the risk of contaminating surface water resources with agrochemicals. While unlikely to be significant at small scale, these impacts scale as the physical size of these facilities increase. Overall, the set of crops and practices to be promoted through demonstration and pilot are specifically intended to be more productive and profitable in the near term, and more sustainable than the typical, current practices they seek to replace or augment. That said, these actions can have impacts addressed in sections above. **Home Gardens:** While on a smaller scale, backyard gardens may have similar, yet more localized, environmental impact to larger scale agricultural actions. However, with adoption across the entire landscape by each household, the aggregate impacts may be significant without appropriate measures in place. While not every household has funds for inputs such as fertilizers, insecticides, and seed, some will, and therefore, the impacts of these efforts must be mitigated as they pose a threat to water quality, biodiversity, and human health. Additionally, support for gardens may promote land clearing and the conversion of forests to agricultural land. Burning of vegetative matter to serve as fertilizer is also a traditional practice which contributes to air pollution and potentially deforestation as well as strips the soil of long term carbon matter and nutrients. Soil erosion and surface water contamination are common concerns for agricultural actions of all types. Use of pesticides in home gardens can be of particular concern as garden plots are located near homes and pesticides can be present on the skins of fresh vegetables and fruits.
Enhanced sanitation in markets and businesses	**Construction and operation** of latrines and hand washing stations have the potential to cause the following adverse impacts: ● *Contamination and odors.* Contaminate shallow groundwater and wells, and when not well maintained or of an open-pit design, can be the source of multiplication of flies, mosquitoes, spread of diseases, and foul odors. Improperly used, designed, or drained latrines or ponding of water from hand washing stations can also contaminate surface water through runoff. ● *Disease transmission.* Poorly designed sanitation facilities can lead to insect- and water- borne diseases as well as other water-related diseases. There are two groups of insects to consider: 1) C*alex* mosquitoes, which do *not* transmit malaria but can transmit filariasis, breed extensively in septic tanks and flooded latrines; and 2) Flies and cockroaches often thrive on excreta and have been implicated in some transmission of fecal-oral disease. Mosquitoes, flies, and cockroaches all constitute a great nuisance, and poor urban households have consistently been shown to spend substantial amounts of household incomes on using control coils and nets. Additionally, poorly designed or operating facilities can transmit disease due to fecal contamination of water supplies such

	as diarrheal disease, cholera, dysentery, typhoid, and giardia, among others. • Disregarding gender and/or people living with a disability in the design of toilets could create a sense of exclusion and frustration. ● *Material sourcing and construction.* Construction with burnt brick poses particular concerns as it relates to deforestation. Construction might also utilize timber or stones and sand from local streams which can cause erosion, deforestation, and sedimentation of streams. Generally, latrine construction has impacts similar to those discussed for small-scale construction below. **Social marketing/education/outreach/community mobilization** on hygienic water handling/storage, hand-washing, use of sanitation facilities (CLTS---community-led total sanitation) and the importance of protecting water supplies is, like system and equipment maintenance, an essential corollary to construction and installation of small-scale water and sanitation infrastructure. Experience shows without behavior change, the physical infrastructure will not be used or maintained. **Innovative latrine technologies** may be promoted for their cost advantages, ease of construction, attractiveness to users, because they better address environmental contamination and disease vector problems, or for other reasons. As a class, however, they present the same potential risks as existing latrine technologies and may or may not be an appropriate design choice in a specific context.
Enhanced access to water in markets and businesses	WATER SUPPLY AND DISTRIBUTION SYSTEMS **Water supply.** Poor design, operation and/or maintenance of water supply improvements can lead to pools of stagnant water near water taps, water pipes and storage tanks. Improper or ineffective practices for disposing of excreta and solid waste can exacerbate this problem. Stagnant water pools form an excellent breeding place for disease vectors (mosquitoes that carry malaria, etc.), and surface water impoundments for household non-potable uses may be especially challenging to manage. They can also increase transmission of water-related diseases, especially when exchange of water is low or in other cases, during high rainfall, they may capture solid waste or excreta as runoff. Adverse impacts to ecosystems can arise from water diversion, construction, or decommissioning actions in or near a watercourse, or from fecal contamination of water. Numerous impacts on ecosystems are possible including the following: i) construction of facilities in sensitive areas; ii) improperly designed water-supply projects that deplete fresh water, erode soil from pipe leakage, or create poor drainage at taps; and iii) contamination of receiving waters with human excreta or animal manure. Depletion of freshwater sources can occur when projects do not adequately assess the quantity of available surface and groundwater (including typical seasonal and annual variations.)

These assessments need to take into account future changes in temperature and rainfall due to climate change. Other causes include poor mechanisms for regulating withdrawals and use of water, and insufficient monitoring and maintenance of leaks.

Wells, boreholes, and water supply systems. Construction and operation of wells, boreholes and small water systems can cause the following adverse impacts:

● *Groundwater depletion.* Deplete groundwater when abstraction exceeds replenishment of groundwater resource. This can lead to conflict amongst users over water quantity or access to water. Drawdown is also a concern if other boreholes are located nearby, thereby reducing water access at adjacent locations.

● *Disease transmission.* Create stagnant (standing) water near the water supply point and creation of diseases vectors breeding sites (mosquitoes, risks of contamination of fetched water, foot infection of water point users, seepage in and contamination of the wells, etc.). Multiple use sites may pass zoonotic diseases to humans. Providing water that does not meet water quality standards can contribute to disease in both humans and animals.

● *Contamination.* Create human health risks from provision of biologically or chemically contaminated water. Even if water is not contaminated initially, it can become so through flooding, failure to exclude livestock from the water point, use of contaminated containers to draw water from hand-dug wells, and other factors.

● *Material sourcing and construction.* Even small-scale uses of burnt brick for water supply (e.g. well enclosures, water towers, etc.) can locally contribute to deforestation.

DISTRIBUTION INFRASTRUCTURE - TOWERS, TANKS, SOLAR PANELS, PIPED SYSTEMS AND COMMUNAL TAPS

Construction/Installation of small-scale renewable energy sources/infrastructure systems are intended to result in far fewer adverse impacts than the traditional technologies (e.g. diesel generator sets) for which they serve as an alternative. They can make possible economic activity, communications and the other beneficial services that would otherwise be unavailable in remote/off-grid areas.

However, each water infrastructure or technology does have a set of potential adverse impacts that require management, but they are generally related to general construction risks. One exception is that communal or piped systems, if constructed with lead pipes or inappropriate soldering, or have ineffective water treatment for bacteria, can lead to contamination of large numbers of residents. Water testing is therefore critical.

WATER PURIFICATION AND TREATMENT: FLASH CHLORINATION, DRAINING, FILTRATION, ETC.

	Point of use water treatment presents strong benefits if required dosage levels and procedures are followed. Health risks related to excessive dosing of water are minimal; the risk is rather of under-treatment and re-contamination that renders the point of use treatment ineffective. Further, appropriate dilution/dosage is the major focus of the intervention.
Construction, rehabilitation or upgrading of infrastructure and building structures <1,000m^2, including, but not limited to, produce collection and marketing structures, transport hubs, post-harvest storage structures, animal housing structures, and other small structures. Warehouses, cooperative storage or processing facilities<1000m^2 *For sites with **no complicating factors**, the site meets the following criteria:* ● *Not within 30m of a permanent or seasonal stream or water body* ● *Does not involve displacement of existing settlement/inhabitants* ● *Has an average slope of less than 5 percent* ● *Not heavily forested, in an otherwise undisturbed local ecosystem, or in a protected area* ● *Disturbed area of no more than 1,000 sq meters or 10 km (for rural feeder roads)* *Less than $250,000 total cost*	Construction has potential adverse impacts, which spans across nearly all types of construction and rehabilitation. Experience has shown that these impacts are controllable below the level of significance with basic good construction management practices, including occupational safety and health practices. **Disturbance to existing landscape/habitat.** Disturbance to existing landscape/habitat. Construction typically necessitates clearing, grading, trenching and other actions that can result in near-complete disturbance to the pre-existing landscape/habitat within the plot or right-of-way. If the plot or right-of-way contains or is adjacent to a permanent or seasonal stream/water body, grading and leveling can disrupt local drainage. The construction process and construction sites present a number of hazards: fall and crush injuries, hazards from hand or power tools and equipment used in construction, and exposure to hazardous substances, such as solvents in paint, cement dust, etc. **Increased Air and Noise Pollution**. Increased air and noise pollution can result during construction or rehabilitation from the actions of construction equipment and workers. **Construction Materials:** Construction requires a set of materials often procured locally: timber, fill, sand and gravel, bricks. Unmanaged extraction of these materials can have adverse effects on the environment. For example, stream bed mining of sand or gravel can increase sedimentation and disturb sensitive ecosystems; purchase of timber from unmanaged or illegal concessions helps drive deforestation. **Sedimentation/fouling of surface waters**. Runoff from cleared ground or materials stockpiles during construction can result in sedimentation/fouling of surface waters, particularly if the site is located in close proximity to a stream or water body. **Standing water**. Construction may result in standing water on-site, which readily becomes breeding habitat for mosquitoes and other disease vectors. **Occupational and community health and safety hazards**. The construction process and construction sites present a number of hazards: fall and crush injuries, hazards from hand or power tools and equipment used in construction, and exposure to hazardous substances, such as solvents in paint, cement dust, etc. **Increased demand for water and production of sewage, manure, and waste waters**. Community structures where people, livestock, or agricultural products are gathered are likely to locally

	increase the demand for water and sanitation facilities. For example, on market day, the need for toilets, fresh water, and areas to pen animals increase. Likewise, the amount of manure and sewage will increase on those days, and without adequate systems, groundwater and surface water can be contaminated, dust can be significant, and health hazards from zoonotic and diarrheal disease can increase. **Adverse impacts of materials sourcing**. Construction requires a set of materials often procured locally: timber, fill, sand and gravel, bricks. Unmanaged extraction of these materials can have adverse effects on the environment. For example, stream bed mining of sand or gravel can increase sedimentation and disturb sensitive ecosystems; or purchase of timber from unmanaged or illegal concessions helps drive deforestation. **Use, storage and disposal of toxic materials**. Numerous toxic chemicals play a significant role in construction industry. These may vary depending on the type of construction. Termiticides and preservatives are used to treat wood. They can extend the life of wood and reduce waste of forest resources, but if improperly used may leach into nearby soils or water and touching treated wood may leave residues on exposed skin. **Use of burnt bricks**. Burnt (fired) bricks are a major cause of deforestation in Africa. The demand for burnt bricks in the construction industry has stimulated a huge demand for hardwood for burning the bricks. This demand is most severe in peri-urban areas.

TABLE 3B: POTENTIAL ENVIRONMENTAL RISKS ASSOCIATED WITH SUBACTVITY 2: LINK YOUTH AND YOUTH COOPERATIVES TO JOB INFORMATION, NETWORKS, FINANCING AND BUSINESS COACHING

Defined intervention types under Sub-activity 2	Potential environmental and social impacts
Link financial services to improved post-harvest techniques at the farmer level – warranties, equipment leasing, credit.	The potential environmental impacts of finance for post-harvest processing include the potential negative impacts associated with related construction, but also increase water usage, waste generation and associated pollution.

TABLE 3C: POTENTIAL ENVIRONMENTAL RISKS ASSOCIATED WITH SUBACTVITY 3: ENGAGE YOUTH AND YOUTH GROUPS IN LOCAL GOVERNANCE THAT WILL SUPPORT THEIR OWN DEVELOPMENT NEEDS

Defined intervention types under Sub-activity 3	Potential environmental and social impacts
Education, technical assistance, or training programs except to the extent such programs	No anticipated impacts on the environment.

include activities directly affecting the environment - Pilot projects on agricultural and livestock insurance, including subsidies - Contingency planning support	
Strengthening market and climate information services	No anticipated impacts on the environment.

4.0 ENVIRONMENTAL DETERMINATIONS

4.1 RECOMMENDED ENVIRONMENTAL DETERMINATIONS

The following table summarizes the recommended determinations based on the environmental analysis conducted. Upon approval, these determinations become affirmed, per 22 CFR 216. Specified conditions, detailed in Section 5, become mandatory obligations of implementation, per ADS 204.

TABLE 4: **INTERVENTION CATEGORIES**

Intervention Categories
Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment - Functional literacy and business training - Organizational management strengthening - Women and youth empowerment
Analyses, studies, academic or research workshops and meetings - Value chain and market assessments - Economic analyses - Impact study of literacy program - Nutrition pathways analyses
Livestock production
Agricultural production and related actions that include: - Training and capacity building (both field and classroom) and demonstrations; - Technical assistance (consultations, advisory, demonstrations and extension services) - Agricultural research – for example seed demonstration or not on research stations - Introduction or strengthening use of techniques and technologies, including but not limited to tillage, no-tillage, cover cropping, rotation, mixed cropping, and irrigation (for purchase or installment of irrigation schemes or equipment - Field crops and fodder production - Home gardens: support for establishing and maintaining - Fruit tree production and establishing tree nurseries
Construction, rehabilitation or upgrading of infrastructure and building structures <1,000m^2, including, but not limited to, produce collection and marketing structures, transport hubs, post-harvest storage structures, animal housing structures, and other small structures. Warehouses, cooperative storage or processing facilities<1000m^2 *For sites with **no complicating factors**, the site meets the following criteria:* ● *Not within 30m of a permanent or seasonal stream or water body* ● *Does not involve displacement of existing settlement/inhabitants* ● *Has an average slope of less than 5 percent* ● *Not heavily forested, in an otherwise undisturbed local ecosystem, or in a protected area* ● *Disturbed area of no more than 1,000 sq meters or 10 km (for rural feeder roads)* *Less than $250,000 total cost*
Construction or rehabilitation of latrines
Construction or promotion of hand washing stations and soak pits
Borehole construction or rehabilitation for mixed use (i.e., potable or non-potable, household uses, livestock watering, or irrigation)
Construction of communal water taps or addition of taps to existing systems
Upgrades to improve reliability (water towers, water tanks, solar panels)
Point of use water purification - flash chlorination, draining, filtration, etc.
Link financial services to improved post-harvest techniques at the farmer level – warranties, equipment leasing, credit.
Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment - Pilot projects on agricultural and livestock insurance, including subsidies - Contingency planning support

Intervention Categories
Strengthening market and climate information services

4.2 CLIMATE RISK MANAGEMENT

The Climate Risk Management analysis identified potential vulnerabilities of the Burkina Faso and Niger Youth Connect activity.

Preparation of the activity level CRM was informed by the project level CRM completed and cleared in association with the Bridge PAD. Additional details were added in the activity level analysis to address specific interventions and to fill gaps in the project level CRM. The simplified climate risk analysis tool was used to analyze and present risks and mitigation actions in this IEE. Climate risk analyses were informed by USAID's Climate Risk Profile: West Africa Sahel. The CRM screening focused primarily on two climate stressors (i.e., increasing temperatures and increasingly variable and unpredictable seasonal rainfall) and two primary shocks (i.e., increased flooding and the increased frequency and magnitude of drought). It is important to note that three of these shocks and stresses (i.e., seasonal rainfall, flooding, and drought) are related to both climate variability and change. These shocks and stresses have the potential not only to negatively affect most interventions, but to result in differentiated and multifaceted impacts across the target zones and populations.

Because Youth Connect is partially addressing agricultural and pastoral sectors, it is sensitive to climatic stresses such as drought, variable rainfall, high temperatures, and floods. The main climate risks for the activity will be associated with direct threats (e.g., floods can wash away fields or irrigation infrastructure, reduced rainfall can limit soil productivity and soil water retention capacity, increasing temperatures can limit crop productivity and surface water retention, etc.). The screening identified 6 moderate, and 1 low climate risk categories of interventions. Through the CRM screening, mitigation measures were identified that directly mitigate these risks, although they cannot fully remove them.

5.0 CONDITIONS AND MITIGATION MEASURES

5.1 CONDITIONS

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

5.1.1 BEO Specified Conditions:

5.1.1.1 Reporting Conditions: As is becoming standard throughout the region, the AFR BEO requests that the activity managers/AORs/CORs provide access to the Regional Environmental Advisor (REA) and to the AFR BEO Team to review (not approve) the Environmental Mitigation and Monitoring Plans/Reports (EMMPs/EMMRs) that will be written to implement the findings of this IEE (see annex 2). These should be uploaded into the appropriate sub-folder(s) of this Google Drive folder: https://drive.google.com/drive/folders/1q7HGMzgopJ-MuKxkQEJ4GSPp9R7Qzv-5?usp=sharing. This will facilitate access by all parties who need these documents, including the Mission Environmental Officer and the AOR/COR. This will allow the REA and the BEO Team to spot-check and review these documents to confirm that the mitigations seem appropriate and are cognizant of the specific design of the activities.

The negative determinations recommended in this IEE are contingent on full implementation of specified conditions and a set of general monitoring and implementation requirements specified in this "BEO Conditions" section as well as Section 5 of the IEE. Some specific conditions to highlight include:

- New activities and those revised to incorporate a change in scope or nature will require an IEE amendment to identify and address potential environmental impacts. This condition is mentioned again in Section 7 of this IEE.
- As there are WASH activities covered under this IEE, the AFR BEO requires that a water quality assurance plan (WQAP) is prepared according to the WQAP Template (https://www.usaid.gov/environmental-procedures/environmental-compliance-esdm-program-cycle/special-compliance-topics/water):
    - Complete a WQAP for WASH-related activities under this IEE, and request and receive AFR BEO review and approval of WQAP.
    - Clearly link the WQAP to this IEE.
    - The review results should be written and on record in the Signing Statement of the WQAP.

5.1.1 During Pre-Award:

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

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

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

5.1.2 During Post-Award:

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

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

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

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

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

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

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

5.1.2.14 USAID Monitoring Oversight: The A/COR or designee, with the support of the cognizant environmental officer(s) (e.g., MEO, REA, BEO), will ensure monitoring of compliance with established requirements (e.g., by desktop reviews, site visits, etc.).

5.1.2.16 Environmental Compliance Mitigation and Monitoring Plan: The A/COR will ensure the IP develops, obtains approval for, and implements Environmental Mitigation and Monitoring Plans (EMMPs) that are responsive to the stipulated environmental compliance requirements.

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

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

5.2 AGENCY CONDITIONS

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

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

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

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

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

5.3 MITIGATION MEASURES

The mitigation measures presented in this section constitute the minimum required based on available information at the time of this IEE and the environmental analysis in Section 4. These measures shall provide general direction for completing the project/activity Environmental Mitigation and Monitoring Plan (EMMP) and/or the EA and PERSUAP, if required.

ACTIVITY 1: YOUTH CONNECT SUB ACTIVITY 1

TABLE 5A. SUMMARY OF MITIGATION MEASURES FOR INTERVENTION CATEGORY: EQUIP YOUTH WITH MARKET-RELEVANT SKILLS TO PREPARE THEM FOR LIVELIHOODS

Intervention Category	Mitigation Measures
Support to agricultural and livestock production	I. The awardee/IPs engaged in livestock production actions will follow best practices and assure implementation of environmental mitigation and monitoring conditions specified in USAID Sectoral Guidelines for Livestock available at: https://www.usaid.gov/environmental-procedures/sectoral-environmental-social-best-practices/seg-livestock/pdf;

Intervention Category	Mitigation Measures
	USAID Sectoral Guidelines for Agriculture https://www.usaid.gov/environmental-procedures/sectoral-environmental-social-best-practices/seg-dryland-agriculture/pdf and the USAID Sectoral Guidelines for Dryland Agriculture https://www.usaid.gov/environmental-procedures/sectoral-environmental-social-best-practices/seg-dryland-agriculture/pdf and integrate applicable best management practices into the EMMP to mitigate among other potential risk of surface and groundwater and air pollution from animal manure/excreta and disease transmission. 2. Livestock production and increased diversity of livestock holdings must be informed by assessments of carrying capacity of rangeland, impact on biodiversity, soil health, feed requirements and forage production, availability of water resources, access to veterinary services, waste management capacity, GHG considerations and social impacts, including potential conflicts over access to private or communal natural resources. The assessment results will provide input for the planning of interventions. 3. IPs engaged in actions of intensification of livestock production or leading to intensification of livestock production will integrate their actions with actions aimed at improved rangeland management, feed management, and water resources management. These complementary actions may be implemented by a different IP through a collaboration arrangement. 4. The IPs will implement water access management options for protection of drinking water sources and riparian protection (e.g. use of alternative water sources, herding, manure disposal, and fencing). These complementary actions may be implemented by a different IP through a collaboration arrangement. 5. The project will introduce practices aimed at minimizing GHG emissions (e.g. improved animal nutrition, manure management, pasture management). 6. No new breeds will be introduced without careful review and coordination by a trained specialist and in consultation with relevant Government ministries and institutions as required by host country regulations. **Social Mitigation Measure:** IPs will conduct a consultation with stakeholders prior to initiation of livestock intensification or fodder production involving shared community resources. **Climate Risk Management:** Promote guinea fowl, which are generally hardier to environmental extremes. Promote improved livestock care practices such as provision of water and feed to livestock, sanitary and well-ventilated shelter, vaccinations, and other veterinary care. All agricultural actions must incorporate and promote sound environmental management practices in general conformity with relevant chapters of USAID's Sectoral Guidelines at: (https://www.usaid.gov/environmental-procedures/sectoral-

Intervention Category	Mitigation Measures
	environmental-social-best-practices/sector-environmental-guidelines-resources 7. The selection and demonstration of crops for cultivation should reflect local environmental conditions, with particular emphasis on the local terrain, biodiversity, future climate predictions, and quality and quantity of water and soil resources. 8. All agricultural actions will include sensitization of partners, stakeholders and beneficiaries to climate risks of agriculture and required environmental safeguards. 9. Where appropriate, the partner will promote environmental safeguards and climate adaptation for agricultural actions including, to the extent possible: ● Avoid land clearance and removal of vegetation, with a preference for utilizing already cleared plots. ● Where plots must be cleared, it will be done in environmentally sustainable manner conserving vegetation and replanting trees. ● Discourage agricultural actions within 30 meters of water bodies. ● Plot siting will take into consideration local social and cultural constructs and norms. ● The use of chemical inputs should not be avoided on principle, but if synthetic inputs are to be promoted a pesticide safer use capacity building strategy should be supported by a package of marketing, quality improvement and value addition actions that can support the increased expense of input requirements. 10. For all actions supporting **agricultural research or demonstration** that are not confined to small areas (e.g., on an agricultural research station), the SIEE must be amended before any related activities may be implemented. The modification must be fully cleared prior to commencing the action. **Climate Risk Management**: enhance the availability of early-maturing and drought-tolerant seeds, support provision of climate information, and explore developing agricultural insurance.
Construction, rehabilitation or upgrading of infrastructure and building structures <1,000m^2, including, but not limited to, produce collection and marketing structures, transport hubs, post-harvest storage structures, animal housing structures, and other small structures. Warehouses, cooperative storage or processing	Negative Determination with Conditions, as follows: 1. Those actions having no complicating factors (see left) will incorporate the following mitigation measures: ● All construction / rehabilitation actions shall be conducted following the principles as provided in the USAID Sectoral Guidelines for Small Scale Construction https://www.usaid.gov/environmental-procedures/sectoral-environmental-social-best-practices/seg-construction/pdf.

Intervention Category	Mitigation Measures
facilities<1000m^2 *For sites with **no complicating factors**, the site meets the following criteria:* ● *Not within 30m of a permanent or seasonal stream or water body* ● *Does not involve displacement of existing settlement/inhabitants* ● *Has an average slope of less than 5 percent* ● *Not heavily forested, in an otherwise undisturbed local ecosystem, or in a protected area* ● *Disturbed area of no more than 1,000 sq meters or 10 km (for rural feeder roads)* *Less than $250,000 total cost*	● No construction should be undertaken without the relevant permits and licenses. Where construction is being undertaken on communal land, community engagement in planning and decision making needs to be considered. ● Construction actions will introduce required measures to minimize solid waste pollution, water pollution and polluted water runoff, soil pollution and noise and air pollution in a manner generally consistent with the Best Practices in Construction, including the development of construction management plans, promotion of resource efficiency, and environmentally friendly procurement of materials. ● Construction will be properly sited in accordance with water and groundwater resources. ● Occupational safety and health of employees will be ensured through development of site health and safety plans which adhere to best safety practices and availability of PPE. ● No lead paint or asbestos will be used in construction. The procurement or use of pesticides, including herbicides, insecticides, acaricides, and fungicides, is disallowed until such time that a **PERSUAP is completed pursuant to 22 CFR Regulation 216.3 (b)**—USAID pesticide procedures— and duly approved. Actions involving pesticide safer use training, IPM measures, and extension outreach, but not procurement or use of pesticides, may proceed with an approved EMMP in place (see Section 6 for special limitations).
Construction or rehabilitation of latrines	1. Construction and rehabilitation will follow applicable conditions for construction identified above. 2. The awardee/IP engaged in construction and rehabilitation of latrines will follow best practices and assure implementation of any environmental mitigation and monitoring conditions specified in USAID Sectoral Guidelines for Water Supply and Sanitation https://www.usaid.gov/environmental-procedures/sectoral-environmental-social-best-practices/seg-water-supply/pdf 3. At a minimum, latrines construction and rehabilitation will: ● Ensure that the environment is free from contamination with human waste by properly siting, designing and constructing latrines to avoid discharge of chemical and microbial contaminants into the ground and surface waters. ● Locate pit latrines at least 30 meters away from any water sources and the bottom of any latrine must be at least 1.5 meters above the water table. Drainage or spillage from the latrine must not run towards any surface water source or shallow groundwater source. The distances may be increased for fissured rocks and limestone but are sufficient in fine soils. ● Build elevated toilets or septic tanks, where necessary in flooded or high-water table environments, to prevent overflowing and contamination of the environment.

Intervention Category	Mitigation Measures
	● Ensure that latrines are properly equipped, emptied and maintained. ● Ensure that users have the means to wash their hands after latrine use with soap or an alternative (such as ash), and should be encouraged to do so. There should be a constant source of water near the latrine for this purpose. (See Construction or promotion of hand washing stations action below) ● Ensure that latrines are properly decommissioned, and do not leave pits open. Prior to latrine construction, adequate attention must be paid to identifying and addressing social barriers to using latrine, for example, selecting the location. Key hygiene behaviors and factors such as cultural perceptions, distance to the latrine, safety to users and community participation in cleaning and maintenance of the latrine should be addressed. Where the population has not traditionally used toilets, it may be necessary to conduct a concerted education/promotion campaign to encourage their use and to create a demand for more toilets to be constructed.
Construction or promotion of hand washing stations and soak pits	1. The awardee/IP engaged in construction handwashing stations will follow best practices and assure implementation of any environmental mitigation and monitoring conditions specified in USAID Sectoral Guidelines for Water Supply and Sanitation https://www.usaid.gov/environmental-procedures/sectoral-environmental-social-best-practices/seg-water-supply/pdf 2. Technologies and locations of handwashing stations will be appropriate for the local context including availability of materials, water and soap. 3. The design and use of hand washing station must ensure that no stagnant water pools are generated to become a disease vector breeding ground. 4. Handwashing stations must be located very close to latrine facilities (within 1.5m of the latrine exit) to avoid the possibility of fecal-oral contamination and designed for effective use. 5. Where stagnant water is generated, treatment appropriate to climate and type of soil will be selected. Standing waste water generated due to poor drainage from hand-washing may need to be addressed by building a soak pit to facilitate percolation of water into the ground. In hot and dry season evaporation or use of wastewater for irrigation should be considered. **Social Mitigation Measure:** Prior to construction of handwashing station, adequate attention must be paid to identifying and addressing key hygiene behaviors. Where the population does not have proper hygiene habits, it may be necessary to conduct a concerted education/promotion campaign to create awareness about health benefits of handwashing particularly after use or maintenance of a latrine. Communities must be informed and children must receive

Intervention Category	Mitigation Measures
	warning where water provided for hand-washing is generally not fit for human consumption.
Borehole construction or rehabilitation for mixed use (i.e., potable or non-potable, household uses, livestock watering, or irrigation)	**Negative Determination** with Conditions, as follows**:** 1. The awardee/ IP engaged in construction of boreholes will ensure environmentally sound design by skilled professionals and actionable mitigation at every phase of construction, as provided in USAID Sectoral Guidelines for Water Supply and Sanitation https://www.usaid.gov/environmental-procedures/sectoral-environmental-social-best-practices/seg-water-supply/pdf. 2. Prior to borehole drilling and water extraction IPs or their designated contractors must obtain all required applicable authorizations, licenses and permits from the local authorities. 3. Prior to construction, groundwater capacity and discharge rates must be measured to ensure sustainability as well as limit drawdown on nearby wells. The quantities of water supplied by water points to expected beneficiaries must be minimally consistent with standards set by the World Health Organization to ensure water is available at all times for personal hygiene, food preparation, cleaning, and laundry.[6] 4. Boreholes must be properly sited and located away (up slope and at least 50m) from sources of contamination, such as latrines or poorly drained areas which receive contaminated run-off and away from other sources of abstraction. 5. Prior to opening of the borehole, the project will test water in accordance with local standards, but at a minimum, tests water quality for fecal coliform and arsenic. 6. If water is potable, conditions above for potable boreholes must also be implemented. **Recommended Social Mitigation Measures:** IPs will consult with stakeholders and community authorities to determine issues of access and natural resource governance around boreholes. For large-scale or municipal mixed-use borehole and water systems, the **SIEE must be amended** before any related

[6] World Health Organization's 2009 Water, Sanitation and Hygiene Standards for Schools in Low Cost Settings (http://www.who.int/water_sanitation_health/publications/wash_standards_school.pdf).

Intervention Category	Mitigation Measures
	activities may be implemented. The modification must be fully cleared prior to commencing the action. All water supply activities will develop and follow **Water Quality Assurance Plans (WQAPs)** and USAID-funded water supplies, including point of use treatment, provide safe drinking water, defined as meeting local and United States Environmental Protection Agency water quality standards. Development of the WQAP must be consistent with USAID's WQAP Template: https://www.usaid.gov/sites/default/files/documents/1860/Africa_Bureau_WQAP_Template_Final.docx
Upgrades to improve reliability (water towers, water tanks, solar panels)	Installation of infrastructure related to water provision must comply with environmentally sound design and best practices, as provided in USAID Sectoral Guidelines for Construction (https://www.usaid.gov/environmental-procedures/sectoral-environmental-social-best-practices/seg-construction/pdfand Water Supply and Sanitation (https://www.usaid.gov/environmental-procedures/sectoral-environmental-social-best-practices/seg-water-supply/pdf All water supply activities will develop and follow **Water Quality Assurance Plans (WQAPs)** and USAID-funded water supplies, including point of use treatment, provide safe drinking water, defined as meeting local and United States Environmental Protection Agency water quality standards. Development of the WQAP must be consistent with USAID's WQAP Template: https://www.usaid.gov/sites/default/files/documents/1860/Africa_Bureau_WQAP_Template_Final.docx
Point of use water purification - flash chlorination, draining, filtration, etc.	**Negative Determination** with Conditions, as follows: 1. Water quality testing must be used to verify that the point of use treatment (e.g., Aquatab and sand-filter treatment) is sufficient to ensure the safety of drinking-water. 2. Any USAID-supported activity engaged in the provision of potable water must adhere to Guidance Cable State 98 108651, which requires arsenic testing. That 1998 cable also anticipates "practical guidelines on sampling and testing for arsenic" that were then under development. Refer to the USAID, "Guidelines for Determining the Arsenic Content of Ground Water in USAID-Sponsored Well Programs in Sub-Saharan Africa." USAID requires, at minimum, testing of groundwater for arsenic and fecal coliform, at all water point construction or rehabilitation actions prior to opening of the water source to public consumption. All water supply activities will develop and follow **Water Quality Assurance Plans (WQAPs)** and USAID-funded water supplies, including point of use treatment, provide safe drinking water,

Intervention Category	Mitigation Measures
	defined as meeting local and United States Environmental Protection Agency water quality standards. Development of the WQAP must be consistent with USAID's WQAP Template: https://www.usaid.gov/sites/default/files/documents/1860/Africa_Bureau_WQAP_Template_Final.docx

TABLE 5B: SUMMARY OF MITIGATION MEASURES FOR INTERVENTION CATEGORY: LINK YOUTH AND YOUTH COOPERATIVES TO JOB INFORMATION, NETWORKS, FINANCING AND BUSINESS COACHING

Intervention Category	Mitigation Measure
Link financial services to improved post-harvest techniques at the farmer level – warranties, equipment leasing, credit.	**Negative Determination** with Conditions, as follows 1. Support post-harvest should incorporate cleaner production and waste energy and water minimization mitigation measures into actions, in accordance with mandatory references for best practice: USAID Guidelines for Micro and Small Enterprises: https://www.usaid.gov/environmental-procedures/sectoral-environmental-social-best-practices/sector-environmental-guidelines-resources.. 2. Financial institutions must provide to USAID a summary of their codified environmental and social screening process for the technologies supported. 3. Access to finance, loans, materials will not promote actions that have significant impact or deteriorate the environment. IPs must ensure that receiving parties are trained on best environmental practice related to their field using USAID sector environmental guidelines **Climate Risk Management:** Promotion of agricultural insurance and the use of loan guarantees can help to reduce the risk to banks and promote lending.

TABLE 5C: SUMMARY OF MITIGATION MEASURES FOR INTERVENTION CATEGORY: ENGAGE YOUTH AND YOUTH GROUPS IN LOCAL GOVERNANCE THAT WILL SUPPORT THEIR OWN DEVELOPMENT NEEDS

Intervention Category	Mitigation Measure
Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment - Pilot projects on agricultural and livestock insurance, including subsidies - Contingency planning support	No associated mitigation measures.
Strengthening market and climate information services	No associated mitigation measures.

6.0 LIMITATIONS OF THIS INITIAL ENVIRONMENTAL EXAMINATION

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

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

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

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

7.0 REVISIONS

Per 22 CFR 216.3(a)(9), when ongoing programs are revised to incorporate a change in scope or nature, an IEE amendment will be prepared to identify and address all environmental impacts. Per ADS 204, it is the responsibility of the USAID A/COR to keep the MEO/REA and BEO informed of any new information or changes in the activity or environmental impacts, requiring revision of this environmental analysis and environmental determination.

ATTACHMENTS:

Annex 1: Climate Risk Management Summary Table for Bridge Project
Annex 2: Environmental Mitigation and Monitoring Plan

Annex 1. Activity Climate Risk Management Summary Table

Tasks/Defined or Illustrative Interventions	Climate Risks	Risk Rating	How Risks are Addressed	Opportunities to Strengthen Climate Resilience[7]
Sub-Activity 1				
Livestock Production	**Droughts** can reduce fodder availability, change the composition of fodder species (reducing nutrition), and reduce access to water for livestock. **Extreme events** (e.g., flooding caused by an increasing frequency of intense rainfall) may reduce access to fodder and increase disease outbreaks. **More variable and unpredictable rainfall** may require pastoralists to change their management strategy, which may require them to move more toward where farmers are. Animals could become sick if out-season rains occur. **Increases in temperature** increase mortality, reduce livestock reproduction, and change disease dynamics (poultry are particularly sensitive to high temperatures).	High	The activity will prioritize guinea fowl, which are generally hardier to environmental extremes. The activity will promote improved livestock care practices such as provision of water and feed to livestock, sanitary and well-ventilated shelter, vaccinations, and other veterinary care. Contingency plans will address the potential response to drought or flood impacts on livestock.	Livestock, particularly small ruminants, are better adapted to harsh climate and can diversify livelihoods, particularly when rainfed crops fail.

[7] Describe opportunities to achieve multiple development objectives by integrating climate resilience or mitigation measures

Tasks/Defined or Illustrative Interventions	Climate Risks	Risk Rating	How Risks are Addressed	Opportunities to Strengthen Climate Resilience[7]
Agricultural Production	**Droughts** can reduce the productivity of rainfed agriculture and decrease water availability for irrigation (may be a longer-term impact). **Extreme events** (e.g., flooding caused by an increasing frequency of intense rainfall) can result in the loss of land and crops (both rainfed and irrigated), as well as irrigation infrastructure. **More variable and unpredictable rainfall** (i.e., increasing inter-annual variations) will cause rainfed agricultural productivity to becomes less reliable. Irrigated agriculture may be less affected, with effect depending on the source of water (river, groundwater) being used. **Increase in temperature** decreases soil moisture, increases evaporation rates, reduces the viability of certain crop varieties, and increases the occurrence of bushfires.	High	This activity will increase the availability of early-maturing and drought-tolerant seeds. The activity also promotes livestock production, which can provide additional food/income if annual crops fail. The activity also supports provision of climate information which will help farmers adjust their planting timing and crops. The activity will also explore developing agricultural insurance.	Other USAID partners will be promoting watershed management, climate smart agriculture, and diversified livelihoods which can increase the resilience of the cropping system and decrease the economic impacts of climate changes on crops. Long term research into climate resilient crop varieties can be helpful.
Improved agricultural harvest and post-harvest practices	**Floods** could destroy post-harvest infrastructure. **Increasing temperatures** could affect the postharvest practices, especially for milk, meat and vegetables which spoil easily.	Moderate	Assist farmers and processors to assess flood risk and construct infrastructure in less risky locations. Promote solar-powered cold storage where cost-effective.	Improved post-harvest storage and processing can also result in less food wastage and safer products

Tasks/Defined or Illustrative Interventions	Climate Risks	Risk Rating	How Risks are Addressed	Opportunities to Strengthen Climate Resilience[7]
Enhanced access to water in markets and businesses	**Increased temperatures** may cause more favorable vector habitats in drinking water supplies (increased disease burden). **Increased rainfall and extreme weather** events impact availability of clean drinking water (drought or contamination)	Low	Ensure water infrastructure is designed and constructed according to best practices to minimize potential for contamination	Access to clean water in markets and other businesses promotes livestock well-being and allows for improved food safety
Enhanced sanitation in markets and businesses	**Extreme rain events** can cause poorly constructed latrines to collapse.	Moderate	Ensure latrines are constructed properly	Sanitation infrastructure promotes health and improves accessibility of markets to women
Use of agricultural tools and machinery	Households suffering from **shocks** may not have the cash resources to buy tools, maintain machinery, buy fuel. Emergency responses that provide free tools could undermine the sustainability of merchants.	Moderate		
Sub-Activity 2				
Finance for post-harvest processing	The difficulty of appraising the risk associated with increasing **unpredictable rainfall** can reduce the willingness of banks to lend to businesses in the agricultural and livestock sectors. **Massive climate shocks** could bankrupt financial services providers if they are unable to cover their losses. Depends on the size of the institutional - local banks are more likely to be affected than large banks.	Low	Promotion of agricultural insurance and the use of loan guarantees can help to reduce the climate risk to banks and promote lending.	Access to finance can help processors invest in infrastructure, equipment, and training that allows them to better manage climate risks.

ANNEX 2: ENVIRONMENTAL MONITORING AND MITIGATION PLAN

USAID
FROM THE AMERICAN PEOPLE

ENVIRONMENTAL MITIGATION AND MONITORING PLAN (EMMP)

PROJECT/ACTIVITY DATA

Project/Activity Name:	
Geographic Location(s) (Country/Region):	
Implementation Start/End:	
Contract/Award Number:	
Implementing Partner(s):	
Tracking ID/link:	
Tracking ID/link of Related IEE:	
Tracking ID/link of Other, Related Analyses:	

ORGANIZATIONAL/ADMINISTRATIVE DATA

Implementing Operating Unit(s): **(e.g. Mission or Bureau or Office)**	
Lead BEO Bureau:	
Prepared by:	
Date Prepared:	
Submitted by:	
Date Submitted:	

ENVIRONMENTAL COMPLIANCE REVIEW DATA

Analysis Type:	EMMP
Additional Analyses/Reporting Required:	EMMR *[Add others as appropriate]*

PURPOSE

This template is modified from the standard USAID Agency Environmental Mitigation and Monitoring Plan (EMMP) template in that this EMMP requires more detailed narrative of environmental impacts, carry over of specific BEO conditions, and clearances by the A/COR and MEO with availability of this document to the REA and the BEO on the USAID shared Google Folder: https://drive.google.com/drive/u/0/folders/11havIAxH08vgaiUtmpGXpv2I-xnRWSNK.

Environmental Mitigation and Monitoring Plans (EMMPs) are required for USAID-funded projects when the 22CFR216 documentation governing the project (e.g. the Initial Environmental Examination (IEE)) imposes mitigation measures on at least one project or activity. EMMPs ensure that the ADS 204.3 requirements for incorporating and monitoring appropriate mitigative measures into project or activity design. Responsibility for developing the EMMP lies with USAID, but EMMPs are usually prepared by the Implementing Partner (IP). EMMPs are typically conducted after the IEE is complete, though they may be completed as part of the IEE. EMMPs are a vehicle for translating IEE conditions and mitigation measures into specific, implementable, and verifiable actions.

An EMMP is an action plan that clearly defines:

1. **Mitigation measures.** Actions that reduce or eliminate potential negative environmental impacts resulting directly or indirectly from a particular project or activity, including environmental limiting factors that constrain development.
3. **Monitoring indicators[8].** Criteria that demonstrate whether mitigation measures are suitable and implemented effectively.
4. **Monitoring/reporting frequency.** Timeframes for appropriately monitoring the effectiveness of each specific action.
5. **Responsible parties.** Appropriate, knowledgeable positions assigned to each specific action.

USAID APPROVAL OF EMMP

*[**The routing process and associated signature blocks may be customized by Bureau or Mission. Please follow Bureau- or Mission-specific guidance.** Include signature blocks in accordance with Bureau and/or Mission policy. At a minimum include the noted required signatures. Add other signatures as necessary.]*

Approval:	_____ [Name], Activity Manager/A/COR ***[required]***	_____ Date
Clearance:	_____ [Name], Mission Environmental Officer ***[as appropriate]***	_____ Date
Clearance:	_____ [Name], Regional Environmental Advisor ***[as appropriate]***	_____ Date
Concurrence:	_____ [Name], ____ Bureau Environmental Officer ***[as appropriate]***	_____ Date

DISTRIBUTION: [Distribution lists may be customized by Bureau or Mission. Please follow Bureau- or Mission-specific guidance.]

[8] Note: Monitoring indicators differ from performance indicators, which are the measures that USAID uses to detect progress towards the results included in a Results Framework.

1.0 PROJECT/ACTIVITY SUMMARY

[*This should be a concise summary of information in the IEE, modified to site-specific circumstances, with regard to mitigation and monitoring activities.]*

1.1 GENERAL ACTIVITY SUMMARY

[Provide a description of the overall activity including locations of the activity and the environmental setting associated with the activity.]

1.2 CONDITIONS ASSOCIATED WITH THE ACTIVITY

[Copy from the IEE, the associated conditions of this activity.]

1.3 DESCRIPTION OF SUB-ACTIVITIES

[Provide in detail the actions associated with this activity.]

2.0 ENVIRONMENTAL SETTING AND IMPACTS

2.1 ENVIRONMENTAL SETTING

[Provide details about:

- where actions will take place
- identify any locations of special consideration such as parks or Ramsar sites
- other details which may improve the understanding of the environmental impacts]

1.2 ENVIRONMENTAL IMPACTS

[In narrative, conduct an analysis of environmental impacts associated the sub-activities described in Section 1.3 including potential indirect and cumulative impacts assocated with the sub-activities.]

EMMP table for [*provide name of activity*]

[Modify activity categories as appropriate.]

Project/Activity/Sub-Activity	**Identified Environmental Aspects or Impacts**	**Mitigation Measure(s)**	**Monitoring Indicator(s)**	**Monitoring and Reporting Frequency**	**Responsible Parties**
Activity Category 1:					
Activity Category 2:					
Activity Category 3:					
Activity Category 4:					
Activity Category 5:					
Activity Category 6:					
Add rows as needed					