INITIAL ENVIRONMENTAL EXAMINATION

PROJECT/ACTIVITY DATA

Project/Activity Name:	Rwanda PROSPER IEE
Geographic Location(s) (Country/Region)**:**	Rwanda
Amendment (Yes/No), if Yes indicate # (1, 2...):	No
Implementation Start/End Date (FY or M/D/Y)**:**	10/2021 – 1/ 2027
Solicitation/Contract/Award Number(s):	
Implementing Partner(s):	Multiple
Bureau Tracking ID:	Rwanda PROSPER IEE https://ecd.usaid.gov/document.php?doc_id=54444
Tracking ID of Related RCE/IEE (if any)**:**	
Tracking ID of Other, Related Analyses:	Rwanda S-Time IEE; https://ecd.usaid.gov/document.php?doc_id=41061 Partnership for Inclusive Agricultural Transformation in Africa (PIATA) PIEE; https://ecd.usaid.gov/document.php?doc_id=49883 DCN, BFS-17-02-001 World Bank Environmental Assessment https://projects.worldbank.org/en/projects-operations/document-detail/P126498?type=projects Employment and Economic Empowerment of Youth with Disabilities (EYD) RCE: https://ecd.usaid.gov/document.php?doc_id=53099 COVID Economic Recovery Fund (ERF) RCE: https://ecd.usaid.gov/document.php?doc_id=53232 Employment and Entrepreneurship (E&E) IEE: https://ecd.usaid.gov/document.php?doc_id=53235 Rwanda Private Sector Driven Agricultural Growth (PSDAG) Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP)_ https://ecd.usaid.gov/repository/pdf/46391.pdf Ministry of Agriculture and Animal Resources Rwanda Feeder Road Development Project ESMP_Rwanda Feeder Roads Development Project - Additional Finance.pdf - Google Drive

ORGANIZATIONAL/ADMINISTRATIVE DATA

Implementing Operating Unit(s): (e.g., Mission or Bureau or Office)	USAID/Rwanda
Other Affected Operating Unit(s):	
Lead BEO Bureau:	AFR/SD
Funding Account(s) (if available)**:**	
Original Funding Amount:	$134 Million
Prepared by:	USAID/Rwanda: Jean Damascene Nyamwasa, Evan Meyer, ECOS: Jaime Capron, Josh Habib, Shamim Niazi
Date Prepared:	November 2021

ENVIRONMENTAL COMPLIANCE REVIEW DATA

Analysis Type:	☒Environmental Examination	☐Deferral
Environmental Determination(s):	☒Categorical Exclusion(s) ☒Negative ☐Positive ☐Deferred (per 22 CFR 216.3(a)(7)(iv)	
IEE Expiration Date (if applicable)**:**	January, 2027	
Additional Analyses/Reporting Required:	EMMP, WQAP	
Climate Risks Identified (#):	Low ___4___ Moderate ___3___ High ___1___	
Climate Risks Addressed (#):	Low ___NA___ Moderate ___3___ High ___1___	

THRESHOLD DETERMINATION AND SUMMARY OF FINDINGS

PROJECT/ACTIVITY SUMMARY

To build the capacity of Rwanda's economy, citizens, and governance institutions, and assist the country to become more self-reliant, the focus of the PROSPER economic growth strategy will shift towards commercializing agriculture, enabling the growth of small and medium businesses, and greater inclusion of, and opportunities for, youth and women. PROSPER will unlock the growth potential of Rwanda to become a knowledge-based, middle-income country by addressing binding constraints to inclusive and sustainable growth. Under Intermediate Result (IR) 1, PROSPER will focus on improving the enabling environment for private sector competitiveness by strengthening financial markets, improving the overall policy framework for enterprise development, and fostering evidence-based dialogue on key reform actions in agriculture and other sectors. PROSPERs IR 2 approach will increase access to and adoption of productivity enhancing technologies, expand access to and responsiveness of agriculture markets, and foster diversification into new high-value and/or highly nutritious agricultural products. Opportunities for youth employment and entrepreneurship in Rwanda are severely limited, so under IR 3, PROSPER will bring Rwanda's youth and women into the mainstream of economic opportunity, through employment, innovation, skills-building, and access to finance.

ENVIRONMENTAL DETERMINATIONS

Upon approval of this document, the determinations become affirmed, per Agency regulations (22 CFR 216).

There are 17 Mechanisms/Awards discussed under this IEE, three of which closed in 2020, four of which are analyzed under individual award level IEEs/RCEs, one of which is implemented by a Public International Organization (PIO) and is subject to the World Bank's environmental procedures, and nine of which are analyzed by this IEE. The nine mechanisms evaluated under this IEE include:

- **Mechanism 1**: Hinga Weze (formerly) Feed the Future (FtF) Sustainable Food, Agriculture and Nutrition [SFAN])
- **Mechanism 2**: Huguka Dukore Akazi Kanoze
- **Mechanism 3**: Nguriza Nshore (formerly FtF Farm to Market: Technology, Inclusion, Microfinance and Engagement [FARMTIME])
- **Mechanism 4**: Orora Wihaze (formerly Rwanda Increased Protein for Dietary Diversity [RIPDD])
- **Mechanism 5**: Ongera Ubucuruzi (formerly Trade Infrastructure Project 2)
- **Mechanism 6**: FtF Facilitate Investment Required or Sustainable Export (FIRST)
- **Mechanism 7:** Modernizing Agriculture
- **Mechanism 8:** New Trade Activity (name TBD – Mechanism 5 Follow-on)
- **Mechanism 9:** Policy & Enabling Environment Activity (name TBD)

Intervention Categories:

- **Intervention Category 1:** Programs involving nutrition, health care, or population and family planning
- **Intervention Category 2:** Education, technical assistance, or training programs; research workshops and meetings; projects/programs intended to develop the capability of recipient countries to engage in development planning
- **Intervention Category 3:** Support to small and medium agro-enterprise (including livestock), postharvest handling/storage, and support for climate smart ag and natural resource NRM practices
- **Intervention Category 4:** Activities associated with agricultural inputs such as seed production and supply, seed marketing, planting materials, fertilizers, and pesticides
- **Intervention Category 5:** Provision of grants to Civil Society Organizations (CSOs), community-based organizations and private business
- **Intervention Category 6:** Policy reform, review, and advocacy in agricultural marketing and trade; financial reforms/support mechanisms
- **Intervention Category 7:** Small-scale construction and rehabilitation
- **Intervention Category 8:** Small-scale irrigation[1]

[1] Affecting surface area of less than 25ha, or less than $250,000 total investment. USAID/Rwanda does not expect to provide direct funding for terraces; instead, facilitation and technical assistance is expected (and possibly a matching grant in a trust fund).

TABLE 1: ENVIRONMENTAL DETERMINATIONS

Intervention Categories	Categorical Exclusion Citation (if applicable)	Negative Determination	Positive Determination [2]	Deferral [3]
Intervention Category 1: Programs involving nutrition, health care, or population and family planning	§216.2(c)(2)(viii)	☐	☐	☐
Intervention Category 2: Education, technical assistance, or training programs except to the extent programs include activities directly affecting the environment; analyses, studies, academic or research workshops and meetings; projects/programs intended to develop the capability of recipient countries to engage in development planning	§216.2(c)(2)(i, iii, xiv)	☐	☐	☐
Intervention Category 3: Support to small and medium agro-enterprise (including livestock), postharvest handling/storage, and support for climate smart ag and NRM practices		☒	☐	☐
Intervention Category 4: Activities associated with agricultural inputs such as seed production and supply, seed marketing, planting materials, fertilizers, and pesticides		☒	☐	☐
Intervention Category 5: Provision of grants to CSOs, community-based organizations and private business		☒	☐	☐

[2] Positive Determinations require preparation of a Scoping Statement and Environmental Assessment.
[3] Deferrals must be cleared through an Amendment to this IEE prior to implementation of any deferred activities.

Intervention Category 6: Policy reform, review, and advocacy in agricultural marketing and trade; financial reforms/support mechanisms		☒	☐	☐
Intervention Category 7: Small-Scale Construction		☒	☐	☐
Intervention Category 8: Small-Scale Irrigation (Affecting surface area of less than 25ha, or less than $250,000 total investment)		☒	☐	☐
Note: Development Credit Authority initiatives (DCAs) – which will occur under PROSPER – are now governed by the Development Finance Corporation (DFC). DFC follows International Finance Corporation (IFC) environmental and social standards. The A/COR is responsible for ensuring that the activity complies with DFC's Environmental Compliance Procedures before proceeding with this activity.				

TABLE 2: LIST OF MECHANISMS CROSS-WALKED WITH THE INTERVENTION CATEGORIES

Activity Name/Award number	Status	Governing EC Document	Intervention Categories	Determination(s)
1. Hinga Weze (Ftf SFAN)	Continuing	This IEE	1, 2, 3, 4, 5, 7, 8	CE, ND w/ C
2. Huguka Dukore Akazi Kanoze	Continuing	This IEE	2, 4, 5	CE, ND w/ C
3. Nguriza Nshore (FtF FARMTIME)	Continuing	This IEE	2, 3, 4, 5, 6	CE, ND w/ C
4. Orora Wihaze (formerly Rwanda Increased Protein for Dietary Diversity [RIPDD])	Continuing	This IEE	1, 3, 4, 5, 6, 7	CE, ND w/ C
5. Ongera Ubucuruzi (formerly Trade Infrastructure Project 2)	Continuing	This IEE	2, 3, 6	CE, ND w/ C
6. FtF Facilitate Investment Required for Sustainable Export (FIRST)	Continuing	This IEE	6	ND w/ C
7. Modernizing Agriculture	New	This IEE	3, 4, 5, 7, 8	ND w/ C

8. New Trade Activity (name TBD – Mechanism 5 Follow-on)	New	This IEE	2,3,6	CE, ND w/ C
9. Policy & Enabling Environment Activity	New	This IEE	6	ND w/ C
10. Tera Imbuto Nziza	Continuing	PIATA PIEE	NA	NA
11. Rural Feeder Roads (RFR) PIO	Continuing	WB Environmental Assessment	NA	NA
12. Employment and Economic Empowerment of Youth with Disabilities (EYD)	New	EYD RCE	NA	NA
13. COVID Economic Recovery Fund (ERF)	New	ERF RCE	NA	NA
14. Employment and Entrepreneurship (E&E)	New	E&E IEE	NA	NA
15. Borlaug Higher Education for Agricultural Research Development (BHEARD)	Closed	--	--	--
16. Access Finance Rwanda (AFR)	Closed	--	--	--
17. Tworore Inkoko, Twunguke (TI)	Closed	--	--	--

CLIMATE RISK MANAGEMENT

Section 4.2 summarizes the methodology used and findings of the Climate Risk Management (CRM) Screening, in accordance with ADS 201mal. The project design team, in consultation with the Climate Integration Lead (CIL), considered the potential effect of climate risks/stressors on the sustainability of the project (changing precipitation patterns, rising temperature, floods, droughts, fires, landslides, etc.). See Annex 1 for the complete CRM table.

BEO SPECIFIED CONDITIONS OF APPROVAL

Reporting Conditions: 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. These documents should be uploaded into the appropriate sub-folder(s) of this Google Drive folder:
https://drive.google.com/drive/folders/18ALBmGanoidfCmU9nk2CqkGPV6rcRI1j

Use of this folder will facilitate access by all parties who need these documents, including the Mission Environmental Officer and the AOR/COR. This access 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.

COVID-19 Condition: In order to reduce COVID-19 transmission during the implementation of these activities, USAID managers must:

- Ensure all activities addressed by this IEE adhere to current, applicable COVID-19 guidelines. Refer to the AFR COVID-19 PIEE (attached and linked here -- https://ecd.usaid.gov/document.php?doc_id=52754) for links to U.S. and international guidance on appropriate measures to reduce COVID-19 transmission. Such measures may include, but are not limited to social distancing, use of personal protective equipment, limiting the size of gatherings and travel, and effective disinfection.
- Share with the partner:
    - Applicable COVID-19 guidance from the USAID Mission or U.S. Embassy;
    - Applicable COVID-19 guidance from local authorities;
    - The following Agency-wide “COVID-19 GUIDANCE FOR IMPLEMENTING PARTNERS” page on the USAID website: https://www.usaid.gov/work-usaid/resources-for-partners/covid-19-guidance-implementing-partners.
- Ensure that partners have appropriate training, authorization, and resources to meet the expectations of the applicable guidance while implementing these activities.

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 NAME: Rwanda PROSPER

Bureau Tracking ID: https://ecd.usaid.gov/document.php?doc_id=54444

Approval:	Cleared Jonathan Kamin, Mission Director	11/11/2021 Date
Clearance:	Cleared Evan Meyer, Project Manager	11/03/2021 Date
Clearance:	Cleared Jean Damascene Nyamwasa, Mission Environmental Officer and Climate Integration Lead	11/03/2021 Date
Clearance:	Cleared David Kinyua, Regional Environmental Advisor	11/04/2021 Date
Clearance:	Cleared Stephanie Altman, Regional Legal Officer	11/08/2021 Date
Clearance:	Cleared Colin Quinn, Climate Integration Lead	12/17/2021 Date
Concurrence:	 Brian Hirsch, Africa Bureau Environmental Officer	12/17/2021 Date

DISTRIBUTION:

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 must be addressed through formal environmental mitigation and monitoring plans (EMMPs) and, if needed, Environmental Assessments (EAs).

1.2 PROJECT OVERVIEW

To build the capacity of Rwanda's economy, citizens, and governance institutions and assist the country to become more self-reliant, the focus of the PROSPER economic growth strategy will shift towards commercializing agriculture, enabling the growth of small and medium businesses, and greater inclusion of and opportunities for youth and women. PROSPER will unlock the growth potential of Rwanda to become a knowledge-based, middle-income country by addressing binding constraints to inclusive and sustainable growth. Under IR 1, PROSPER will focus on improving the enabling environment for private sector competitiveness by strengthening financial markets, improving the overall policy framework for enterprise development, and fostering evidence-based dialogue on key reform actions in agriculture and other sectors. PROSPERs IR 2 approach will increase access to and adoption of productivity enhancing technologies, expand access to and responsiveness of agriculture markets, and foster diversification into new high-value and/or highly nutritious agricultural products. Opportunities for youth employment and entrepreneurship in Rwanda are severely limited, so under IR 3, PROSPER will bring Rwanda's youth and women into the mainstream of economic opportunity, through employment, innovation, skills-building, and access to finance.

There are 15 Mechanisms/Awards Under the PROSPER Program, three of which closed in 2020, four of which are analyzed under individual award level IEEs/RCEs, one of which is a PIO subject to the World Bank's environmental procedures, and seven of which are analyzed by this IEE. The mechanisms evaluated under this IEE include:

- **Mechanism 1**: Hinga Weze (formerly) FtF Sustainable Food, Agriculture and Nutrition [SFAN])
- **Mechanism 2**: Huguka Dukore Akazi Kanoze
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1.3 INTERVENTION AND SUB-INTERVENTION CATEGORIES

TABLE 3: DEFINED INTERVENTIONS AND SUB-INTERVENTIONS

Intervention Cat 1. Programs involving nutrition, health care, or population and family planning
Sub-Intervention (Sub-Int) 1.1 Nutrition promotion activities through behavior change communication and nutrition training
Intervention Cat. 2. Education, technical assistance, or training programs; workshops and meetings; projects intended to develop the capability of recipient countries to engage in development planning
Sub-Int 2.1 Technical assistance (TA) and capacity building to central government (Rwanda Agriculture Board, Rwanda Cooperative Agency), local government institutions
Sub-Int 2.2 TA and capacity building to communities' organizations and the private sector
Sub-Int 2.3 Market research and information sharing
Sub-Int 2.4 Work readiness training, technical training, job intermediation services, loan facilitation, mobilization of savings and loans groups, financial literacy training, coaching, mentoring, capacity building, certification & accreditation, curriculum revision, monitoring and evaluation, strengthening of linkages and referral networks, development of online resources, counseling, and compilation of information
Intervention Cat. 3. Support to small and medium agro-enterprise (including livestock), postharvest handling/storage, and support for climate smart agriculture and NRM practices
Sub-Int 3.1 Support to extension services, technical assistance and capacity building to farmers
Sub-Int 3.2 Support to small, and medium enterprises (SME), including Business Development Services (BDS) geared towards cooperative development; strengthen ties between value chain actors and market linkages; support to public private partnership activities
Sub-Int 3.3 Support for climate smart agriculture and natural resource management approaches (including: soil erosion control including terracing, creating contour barriers including live barriers, agroforestry)
Sub-Int 3.4 Use of Information and Communication Technology (ICT) including apps that provide extension information on specific crops or access to precise weather, climate, and soil moisture data
Sub-Int 3.5 Support the promotion of agribusiness technologies including post-harvest, handling, and storage at cooperative level; small agro-processing
Sub-Int 3.6 Demonstration of model farms for different type of livestock (poultry, fish, pigs, rabbits and goats)
Intervention Cat. 4. Activities associated with agricultural inputs such as seed production and supply, seed marketing, planting materials, and fertilizers
Sub-Int 4.1 Promotion of agriculture inputs, including high yielding seeds, fertilizers, and nutrients
Sub-Int 4.2 Distribution and training on use of improved agricultural technologies (i.e., seeds that are drought tolerant and pest and disease resistant, mulching, cover cropping, small-scale mechanization, building green houses, measured use of organic and chemical fertilizers)
Sub-Int 4.3 Demonstration plots for different type of fertilizers and nutrients
Intervention Cat. 5. Provision of grants to CSOs, community-based organizations, SM E development, and private business
Sub-Int 5.1 Provide sub-grants activities to local CSOs and national CSOs
Sub-Int 5.2 Provision of small grants to community-based organizations and private businesses (e.g., micro-franchises)

Intervention Cat. 6. Policy reform, review, and advocacy in agricultural marketing and trade. financial reforms/support mechanisms
Sub-Int 6.1 Support agricultural development policies and agribusiness standards
Sub-Int 6.2 Research development for policy reforms
Sub-Int 6.3 Facilitation of inclusive policy reforms drawing on evidence-based analysis and strengthened advocacy capacity within private sector organizations
Sub-Int 6.4 Support relevant policy reform efforts and public-private dialogue
Sub-Int 6.5 Assist the Government of Rwanda (GOR) to develop and strengthen financial de-risking and bond instruments
Sub-Int 6.6 Support of local actors (government and private sector) to attract, mobilize, and direct public and private financing resources. Interventions will address gaps identified in the areas of investment promotion and mobilization among the Government of Rwanda (GOR) agencies and within their investment programs (including the Export Growth Fund, Horticulture Development Fund, the agricultural risk sharing facility, etc.)
Intervention Cat. 7. Small-Scale Construction
Sub-Int 7.1 Small-scale construction of cold storage facilities
Sub-Int 7.2 Small-scale construction (total surface area disturbed is 1000 m2 or less) of small slaughtering facilities; small agro processing facilities, etc.
Intervention Cat. 8. Small-Scale Irrigation[4]
Sub-Int 8.1 Distribution and training on use of improved water management technologies (i.e.. solar irrigation pumps and drip irrigation, water catchment ponds to store water)
Sub-Int. 8.2 Construction of small-scale irrigation systems

Will this project/activity involve construction[5] as defined by ADS 201 and 303? Yes ☒ No ☐

Small-scale irrigation systems (e.g. water catchment ponds, drip irrigation, solar irrigation pumps), small-scale WASH systems (e.g., latrines, boreholes), cold storage facilities, small slaughtering facilities, and agro-processing facilities.

[4] Affecting a surface area of less than 25ha, or less than a $250K investment.

[5] **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.

2.0 BASELINE ENVIRONMENTAL INFORMATION

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

The Rwandan relief is hilly and mountainous with an altitude averaging 1,700 meters. The highest point on Mt Karisimbi is 4,507 meters above sea level. Rwanda has volcanic mountains at the northern fringe and undulating hills in most of the central plateau. However, the eastern part of the country is relatively flat with altitudes well below 1,500 meters. This relief pattern gives Rwanda a mild and cool climate that is predominantly influenced by altitude. Average annual temperatures are about 19.1^{o}C and average rainfall is about 1,250 mm per annum. The lowlands of the southwest in Bugarama plain with an altitude of 900m are part of the tectonic depression of the African Rift Valley.

A recent mapping inventory of forests with a surface of 0.5 hectares (ha) or higher and with coverage of more than 20% indicated that Rwanda has an estimated 240,746 ha of forests. This is approximately 10% of the surface of the national dry lands (23,835 square km). Rwanda forests and woodlands fall into four categories: the natural forests of the Congo Nile Ridge comprised with Nyungwe National Park (NNP) Gishwati, and Mukura; the natural forests of the Volcano National Park (VNP); the natural forests in savannah and gallery-forest of the Akagera National Park (ANP) and remnants of gallery-forests and savannahs of Bugesera, Gisaka and Umutara; and forest plantations dominated by exotic species (Eucalyptus spp, Pinus spp, Grevillea robusta, etc.) and trees scattered on farmlands (agroforestry) and along anti-erosion ditches.

Rwanda has four types of protected areas which include national parks (Akagera National Park, Nyungwe National Park and Volcanoes National Park); forest reserves (Gishwati forest, Iwawa Island forest and Mukura forest); forests of cultural importance (Buhanga forest); and wetlands of global importance (Rugezi- Bulera-Ruhondo wetland complex). Besides those forests with a legal status of protected areas, there are other forests of cultural importance (Busaga forest in Muhanga district) and other remnants natural forests which are protected by law.

Rwanda's hydrological network includes numerous lakes and rivers and its associated wetlands. The major lakes include Kivu, Bulera, Ruhondo, Muhazi, Cyohoha, Sake, Kilimbi, Mirayi, Rumira, Kidogo, Mugesera, Nasho, Mpanga, Ihema, Mihindi, Rwampanga and Bisoke. The major rivers include the Akagera, Akanyaru, Base, Kagitumba, Mukungwa, Muvumba, Nyabarongo, and Ruvubu in the Nile Basin and Koko, Rubyiro, Ruhwa, Rusizi, Sebeya in the Congo Basin.

A 2008 inventory of wetlands was conducted by Rwanda Environment Management Authority (REMA) through Integrated Management of Critical Ecosystems (IMCE) project funded by the Global Environment Facility (GEF) and World Bank. This inventory showed that Rwanda has 860 marshlands and 101 lakes covering a total surface of 278,536 ha (10.6 percent of the country surface area), and 149,487 ha, respectively. The inventory also found 861 rivers totaling 6,462 km in length. Further, 41 percent of the inventoried marshlands are covered by natural vegetation, 53 percent are under cropping, and about 6 percent are fallow fields. The biggest

marshlands are associated with and clustered around the rivers. Rugezi and Kamiranzovu are high altitude wetlands, most of the others are low altitude.

Despite the important gains that have been made for protecting the environment in recent years, significant threats to environmental well-being remain prominent. The most significant threats to the environment include: agricultural inefficiencies (e.g., excess land/forest clearing, intensive use of pesticides) and soil erosion; population pressure; institutional weaknesses and inefficiencies; energy pressure; degradation of wetlands and lack of clean water; and waste disposal issues.

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

The Rwanda constitution addresses certain environmental dimensions, including environmental impact Article 48 states: 'Any citizen has a right to a safe environment, satisfying and sustainable. Any person has the duty of protecting, maintaining, and promoting the environment. Any act aiming at damaging the environment is punished by the law. The state must protect the environment.' Later, article 192 forbids any accords authorizing the storing on the Rwandan territory of toxic waste and other substances, which may dangerously damage the environment. It states: 'Accords on installation of military barracks on the national territory and those authorizing the storage of toxic waste and other substances which are dangerous for the environment are prohibited (Government of Rwanda, 2017).'

Rwanda has made significant progress to establish a stronger foundation for its environmental activities. Some of the important changes that have impacts on the environment include:

- Green Growth and Climate Resilience Strategy (2011)
- Environment and Climate Change Policy (2019)
- Passage of the Organic Law No. 04/2005; Establishment of the Rwanda Environmental Management Authority (REMA) under Law No. 08/2006;
- Implementation of a government Decentralization Policy and legislation;
- Development and implementation of a land reform process; and
- Provision to the public and private sectors with tools that require the environment to be an integral part of the solutions to critical economic issues with the implementation of the Economic Development and Poverty Reduction Strategy (EDPRS).

The Organic Law on environment is the most significant baseline conservation legislation since 2004. This law serves to: conserve the environment, people and their habitats; set up fundamental principles related to protection of environment; discourage any activities that may degrade the environment; promote the social welfare of the population while considering equal distribution of the existing wealth; consider the durability of the resources with a special emphasis on equal rights to present and future generations; guarantee to all Rwandans sustainable development which does not harm the environment and the social welfare of the population; and establish strategies of protecting and reducing negative effects on the environment and improving/restoring the degraded environment. Additional publications and resources can be found at the Ministry of Agriculture and Animal Resources (MINAGRI) https://www.minagri.gov.rw/.

3.0 ANALYSIS OF POTENTIAL ENVIRONMENTAL RISK

INTERVENTION CATEGORY 1: PROGRAMS INVOLVING NUTRITION, HEALTH CARE, OR POPULATION AND FAMILY PLANNING

TABLE 4A. POTENTIAL IMPACTS – Intervention Category 1

Sub-Intervention Categories	Potential environmental and social impacts
Sub-Intervention 1.1 Nutrition promotion activities through behavior change communication and nutrition training	Limited anticipated environmental and social impacts.

INTERVENTION CATEGORY 2: EDUCATION, TECHNICAL ASSISTANCE, OR TRAINING PROGRAMS; WORKSHOPS AND MEETINGS; PROJECTS INTENDED TO DEVELOP THE CAPABILITY OF RECIPIENT COUNTRIES TO ENGAGE IN DEVELOPMENT PLANNING

TABLE 4B. POTENTIAL IMPACTS – Intervention Category 2

Sub-Intervention Categories	Potential environmental and social impacts
Sub-Intervention 2.1 Technical assistance (TA) and capacity building to central government (Rwanda Agriculture Board, Rwanda Cooperative Agency), local government institutions	Limited anticipated environmental and social impacts.
Sub-Int 2.2 TA and capacity building to communities' organizations and the private sector	
Sub-Intervention 2.3 Market research and information sharing	
Sub-Intervention 2.4 Work readiness training, technical training, job intermediation services, loan facilitation, mobilization of savings and loans groups, financial literacy training, coaching, mentoring, capacity building, certification & accreditation, curriculum revision, monitoring and evaluation, strengthening of linkages and referral networks, development of online resources, counseling, and compilation of information	

INTERVENTION CATEGORY 3: SUPPORT TO SMALL AND MEDIUM AGRO-ENTERPRISE (INCLUDING LIVESTOCK), POSTHARVEST HANDLING/STORAGE, AND SUPPORT FOR CLIMATE SMART AG AND NRM PRACTICES

TABLE 4C. POTENTIAL IMPACTS – INTERVENTION CATEGORY 3

Sub-Intervention Categories	Potential environmental and social impacts
Sub-intervention 3.1: Support to extension services, technical assistance and capacity building to farmers Sub-intervention 3.2: Support to small, and medium enterprises (SME), including Business Development Services (BDS) geared towards cooperative development; strengthen ties between value chain actors and market linkages; support to public private partnership activities Sub-intervention 3.3: Support for climate smart agriculture and natural resource management approaches (including: Soil erosion control including terracing, creating contour barriers including live barriers, agroforestry) Sub-Int 3.4: Use of ICT including apps that provide extension information on specific crops or access to precise weather, climate, and soil moisture data	Activities that directly or indirectly support intensification of agricultural production may contribute to the following adverse impacts: **Environmental Impacts:** **Land conversion.** Clearing of land for agricultural production can contribute to change and fragmentation of landscape, to altering microclimates at forest edges, and to isolating animal populations. Agricultural actions can lead to encroachment into marginal lands, such as hills, wetlands, shallow lakes, and protected areas, and to land degradation. **Loss of natural habitat and biodiversity**. Land conversion can adversely affect natural habitats with impacts on all living organisms and biodiversity. **Loss of vegetation.** Where agricultural lands are expanded, vegetative strips may be destroyed. Agricultural crop production that requires land expansion may require clearing of forests or brush or conversion of grasslands. Clearing of pristine or fully-grown forest and utilizing grasslands for agricultural production can result in increased erosion, loss of biodiversity, decreased rainwater infiltration into aquifers, increased soil temperatures, and reduced buffering against floods and droughts. **Introduction of non-native species.** Unconsidered introduction of non-native species that are new to a given ecological zone, such as crops, trees, cover crops, hedges, and windbreaks, riparian buffers, and other intentionally introduced species present risks that the species will become disruptive or invasive. Introduced exotic species may spread diseases, out-compete native species for resources, become feral, become pests, or interbreed with native species. **Soil erosion.** Crop production practices can be the direct cause of soil erosion as well as exacerbate water and wind erosion. As the soil erodes it stores less carbon, becomes less productive, absorbs less water and the excess runs off. This runoff removes the fertile topsoil necessary for crop production reducing crop yields and can have serious off-site consequences, including gully formation, landslides, siltation and sedimentation of water

	bodies, downstream flooding, and damage to productive infrastructure. **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, potentially causing harm to fish and bottom-dwelling populations. Siltation can intensify downstream flooding by reducing channel capacity and can also fill the upstream areas behind a dam. Siltation may then require repeated dredging that is an expensive process with its own potential environmental impacts. 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 soil fertility.** Soil fertility is dependent on three major nutrients (nitrogen, phosphorus and potassium), various trace elements, and organic matter (carbon) content. A productive soil contains sufficient quantities of each of these elements for high crop yields. However, when soils are not managed appropriately, nutrient and soil carbon levels can decrease resulting in less productive soils. The subsequent decline in soil fertility often occurs in conjunction with soil erosion, with each problem exacerbating the other. **<u>Social Impacts:</u>** Crop production systems have social impacts that may particularly affect women and children. These may include labor issues such as an underpaid or underrepresented labor force, land ownership, water use issues, and related conflicts.
Sub-Int 3.5: Support the promotion of agribusiness technologies including post-harvest, handling, and storage at cooperative level; small agro processing	The environmental and social impacts of post-harvest value adding activities, such as produce harvesting, handling, consolidating, packaging, storing, transporting, and processing will depend on the specific nature and scale of the activities. In general, while each small enterprise engaged in the value-added processing activities may not impact the environment significantly, cumulatively, adverse impacts can become significant. The impacts of post-harvest and food processing activities are inextricably linked to agricultural production and nutrition, including the following adverse impacts: **Agribusiness enterprises (e.g., waste, water management)**. Agricultural processing can be a source of significant adverse environmental impacts. Various food processing, handling,

	storing, and packaging operations can require significant use of water resources and can create wastes of different quality and quantity, which, if not managed or treated properly, could lead to increasing disposal and pollution problems. Additionally, if not recovered by appropriate technologies for upgrading, bioconversion and reutilization, food processing wastes can represent a loss of valuable biomass and nutrients. **Solid waste generation.** Food processing will likely result in the generation of organic wastes and potentially inorganic wastes. For example, organic wastes may include maize cobs and husks or fruit peels, and inorganic waste may include packaging boxes and plastic bags and wraps. Spoiled products, if not properly managed and/or disposed of can become hazardous for human or animal consumption. **Liquid waste generation.** Liquid wastes from food washing and processing contain significant quantities of organic matter, and inorganic matter including biological and chemical contaminants, for example from produce washing or meat processing. Liquid wastes if improperly managed and/or disposed of can generate standing water that will become a breeding ground for disease vectors. When reaching groundwater and surface water, liquid waste can create pockets of pollution. Liquid pollution can result in changes in water pH, temperature, quality (i.e., increased particulate matter, chemical or biological pollutants) and increased nitrogen and phosphorus loads that lead to eutrophication, and long-term problems associated with toxicity of organic compounds and heavy metals that are discharged. **Energy and water consumption.** Processing, storage, and transportation of agricultural produce requires energy, water, and natural resources consumption that can have adverse impacts on the environment. For example, equipment such as pumps that are of poor quality have lower energy efficiency. Also, poor water efficiency can result in less availability of freshwater for other uses and can waste water. **Air, odor, and noise pollution.** Food processing, storage and transportation can become sources of noise, odor, and air pollution. **Industrial and warehouse pesticide use.** Pesticides are used in the food industry to protect commodities, stored food and processing structures from biological contamination by pests. Use of pesticides can result in both serious environmental and human health implications. If not done correctly, fumigation

	used for control of stored commodities can result in very serious health implications and even fatalities. See: Rwanda Private Sector Driven Agricultural Growth (PSDAG) Pesticide Evaluation Report And Safer Use Action Plan (PERSUAP)_ https://ecd.usaid.gov/repository/pdf/46391.pdf **Social Impacts:** Crop production systems have social impacts that may particularly affect women and children. These may include labor issues such as an underpaid or underrepresented labor force, land ownership, water use issues, and related conflicts. Food processing activities may contribute to conflicts such as control over use of resources such as land and water, nuisance issues such as smells and improper waste management and disposal, and labor issues such as underpaid or underrepresented labor force. **Worker health and safety.** Post-harvest food processors are exposed to numerous safety and health hazards that may include, e.g., heat exposure, falls, musculoskeletal injuries, injuries from hazardous equipment and machinery, unsanitary conditions, and pesticides.
Sub-int 3.6: Demonstration of model farms for livestock (poultry, fish, pigs, rabbits and goats)	Direct and indirect environmental and social impacts of production of small ruminants and poultry will depend on farming systems and methods and the scale of production. In general, support and intensification of production of small ruminants and poultry is associated with the following adverse impacts (also see impacts discussed earlier in this section): **Land degradation.** Production of small ruminants can result in land conversion, overgrazing and use of marginal lands, soil erosion and compaction, land degradation and diversification, and loss of natural habitats resulting in losses of biodiversity. Animal manure and urine on land can also result in land degradation. **Spread of disease.** Breed has a strong influence on disease susceptibility and disease management. An uncontrolled introduction of new breeds may result in loss of genetic diversity in livestock species and subsequent susceptibility to disease outbreaks. Other disease concerns include: ● manure and urine from land animals impacting both land and aquatic biodiversity ● fish farms spreading diseases to wild species, outcompeting other species, contaminating water resources, and damaging the aquatic ecosystem

- diseases/pests in the demonstration animals spreading to wild species with negative impacts on ecosystems

Water pollution. Contamination may occur if nutrients from manure or urine enter the water table due to improper use or disposal. 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. Further, nutrient contamination can result in toxic drinking water and algal blooms and negatively affect ecosystems. Water pollution can also occur from improper disposal of veterinary drugs or pesticides.

Improperly handled animal carcasses. Improperly handled animal carcasses of dead animals are a source of water pollution and can contaminate wells and surface water. They can also be a source of transmission of disease, breeding ground for pests, and source of air and odor pollution.

Animal transmitted diseases. This activity may result in increased transmission of zoonotic diseases to humans. (A zoonotic disease is an infectious disease that is transmitted between species from animals to humans [or from humans to animals, or from one species of animals to another species of animal]). 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. Demonstration animals could also result in diseases spreading to wild animals in the area.

Pesticide and veterinary drug use. Livestock and poultry production may require using veterinary drugs and vaccines against diseases and pesticides for control of external parasites such as ticks, bots, flies, mites, lice, and other livestock pests. The use of pesticides can lead to direct adverse effects on animal and human health as well as indirect effects to all non-target organisms through contaminated ecosystems when pesticides are released into the environment. Pesticides can affect consumers of animal products such as meat and dairy if the withholding period after pesticide treatment of animals is not observed.

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 among

	stakeholders, and eventually lead to conflicts. Animals may also wonder into neighboring fields, water sources, or adjacent protected areas causing damage and becoming a source of conflict. Due to the nature of livestock and poultry farming, there is also the potential for social impacts resulting from odor, noise, traffic disturbances, livestock incursion into crops, watering points or protected areas, and unsightly land and facilities used for animal production and housing. Potential sources of odor nuisance include animal effluent (containing urine, dung, wash water, residual food products (e.g., milk) and waste feed, dairy manure, poultry litter (a mix of manure, water, spilled feed, feathers, and bedding material), renderings, and other wastes from livestock finishing operations. **Noise Pollution and Increased Traffic.** The primary noise sources during operation of livestock and poultry farms are assumed to be mechanical services equipment and vehicular traffic. The movement of animals and equipment in support farm activities also has the potential to cause traffic disturbances. **Visual impacts.** During the operation phase will mainly result from on-site buildings and farm facilities, traffic, and lighting on site.

INTERVENTION CATEGORY 4: ACTIVITIES ASSOCIATED WITH AGRICULTURAL INPUTS SUCH AS SEED PRODUCTION AND SUPPLY, SEED MARKETING, PLANTING MATERIALS, FERTILIZERS, AND PESTICIDES

TABLE 4D. POTENTIAL IMPACTS – INTERVENTION CATEGORY 4

Project/Activity	Potential environmental and social impacts
Sub-intervention 4.1: Promotion of agricultural inputs, including high yielding seeds, fertilizers, and nutrients Sub-int 4. 2: Distribution and training on use of improved agricultural technologies (i.e., seeds that are drought tolerant and pest and disease resistant, mulching, cover cropping, small-scale mechanization, building green houses, measured use of organic and chemical fertilizers)	Agricultural intensification allows farmers to obtain greater yields per unit of land and time, but it also requires higher amounts of external agricultural inputs and technologies. Agricultural technologies and inputs have adverse impacts on ecosystem services such as soil fertility, water quality, biodiversity, air quality, and climate, as highlighted below. **Planting materials/seeds** **Lack of access to good quality planting materials.** According to the World Research Institute, breeding of improved crops is generally credited for half of all historical yield gains. However, growers often use or purchase poor quality seed and planting materials from uncertified sources. Using low quality seed and planting materials can have a negative effect on crop yield and waste agricultural inputs. Unimproved seeds may be susceptible

Sub-int 4.3: Demonstration plots for different types of fertilizers and nutrients	to viruses and pests and improperly treated seeds may be infected with fungal or other pathogens resulting in reduced yields. **Introduction of new seeds and planting materials.** Caution must be exercised when introducing non-native seeds and plant materials. Introduction of invasive species is well-known to adversely impact the environment, e.g., by displacing or destroying native plants and insects, and damage crops. **Impacts related to fertilizer use** Soil fertility management activities commonly use organic and inorganic amendments and fertilizers, impact of which varies depending on the type, amount and methods of application. **Surface water and groundwater contamination.** Over-application of fertilizers can lead to runoff into surface waters or leaching into groundwater particularly in sandy soils. Even small amounts of over-application of phosphorous can lead to harmful algal blooms in waterways which reduce oxygen and kill instream fauna. **Human health hazards.** Exposure to fertilizer fumes may cause irritation to the eyes, nose and respiratory tract, inhalation or ingestion of some pesticides may be poisonous, and touching some fertilizers may cause skin irritation. Improperly stored fertilizer can be a health hazard. Phosphorous fertilizers also commonly contain cadmium which is toxic to humans. Children exposed to water with high levels of nitrates contained in fertilizers may develop blue-baby syndrome or methemoglobinemia. **Fertilizer burn.** Excessive application of fertilizer is not only wasteful but can result in fertilizer burn, usually by excess nitrogen salts. **Greenhouse gas emissions**. Fertilizer production is greenhouse gas intensive and application of nitrogen fertilizer results in the production of nitrous oxide. Manure used as fertilizer also releases greenhouse gases. **Acidification**. Nitrogen fertilizers can contribute to soil acidification that can cause losses in productivity. Note that some fertilizers have dual action as pesticides. **Pesticides.** Use of pesticides can result in serious implications to human health and contamination of the environment. Pesticides can directly harm humans and other life forms and cause indirect adverse effects when they are released into the environment. Pesticide poisoning can cause deaths and chronic

	diseases. Pesticides can pollute the tissues of virtually every plant and animal life form on the earth and every natural resource including the air, water, soil, and sediment in rivers. The high-risk groups exposed to pesticides include agricultural farm workers, but pesticides also affect agricultural food consumers and the public that is exposed to pesticides in the environment, for example, through inadequate notification of pesticide application.

INTERVENTION CATEGORY 5: PROVISION OF GRANTS TO CSOS, COMMUNITY-BASED ORGANIZATIONS AND PRIVATE BUSINESS

TABLE 4E. POTENTIAL IMPACTS – INTERVENTION CATEGORY 5

Project/Activity	Potential environmental and social impacts
Sub-int 5.1: Provide sub-grants activities to local CSOs and national CSOs	The provision of grants is not likely to have direct environmental impacts, but the use of grant money can potentially have cumulative and indirect environmental and social impacts. The extent and types of impacts – which in most cases are not expected to be significant – will depend on the type, scale and complexity of the operation and its geographic location.
Sub-int 5.2: Provision of small grants to community-based organizations and private businesses (e.g., micro-franchises).	

INTERVENTION CATEGORY 6: POLICY REFORM, REVIEW, AND ADVOCACY IN AGRICULTURAL MARKETING AND TRADE. FINANCIAL REFORMS/SUPPORT MECHANISMS

TABLE 4F. POTENTIAL IMPACTS – INTERVENTION CATEGORY 6

Project/Activity	Potential environmental and social impacts
Sub-int 6.1: Support agricultural development policies and agribusiness standards	Rwanda agricultural interventions will support the development and implementation of policies that are linked—directly or indirectly—to environmental health and safety and social impacts. These include policies to improve certain agricultural sector initiatives that present the risk of adverse impacts stemming from agricultural inputs, irrigation, waste management, etc. Any adverse impacts generated by policy efforts are likely to be indirect in nature. While the policies do not specifically target elements of environmental health and safety, they are intended to create or promote circumstances that may lead to adverse impacts. For example, targeted agricultural policy initiatives can create situations in which government efforts to improve crop production can lead to an increase in agricultural inputs (e.g., fertilizers and pesticides) solid waste, or discharges to water bodies that the existing infrastructure is not prepared to support in an environmentally sound fashion.
Sub-int 6.2: Research development for policy reforms	
Sub-int 6.3: Facilitation of inclusive policy reforms drawing on evidence-based analysis and strengthened advocacy capacity within private sector organizations	
Sub-int 6.4: Support relevant policy reform efforts and public-private dialogue	
Sub-int 6.5: Assist the GOR to develop and strengthen financial de- risking and bond instruments	
Sub-int 6.6: Support of local actors to attract, mobilize, and direct public and private financing	

resources. Interventions will address gaps identified in the areas of investment promotion and mobilization in GOR agencies and within their investment programs	

INTERVENTION CATEGORY 7: SMALL-SCALE CONSTRUCTION

General environmental impacts of small-scale construction activities include:

Damage to sensitive or valuable habitats: Avoiding or minimizing impacts on biodiversity is a primary consideration for any project. Construction in wetlands, estuaries, or other sensitive ecosystems may destroy or significantly damage exceptional natural resources and the benefits they provide (ecosystem services). This damage may reduce economic productivity, impair essential ecosystem services (such as flood risk reduction, which may become increasingly important in some areas as climate change alters precipitation patterns), or degrade the recreational or cultural value of these resources.

Disturbance to existing landscape/habitat: Construction typically necessitates clearing, grading, trenching and other activities that can result in near-complete disturbance to the pre-existing landscape/habitat within the plot. If the plot contains or is adjacent to a permanent or seasonal stream/water body, grading and leveling can disrupt local drainage.

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 near a stream or water body.

Contamination of ground and water supplies. Hazardous materials may be used in construction. Examples include solvents, paints, vehicle maintenance fluids (oil, coolant), and diesel fuel. If these are dumped on the ground or washed into streams, they may contaminate ground or surface water supplies. This may harm the health of the local community, as well as populations living downhill and downstream. Aquatic and terrestrial ecosystems may also be damaged. Where sanitary facilities for construction crews are inadequate, human waste may contaminate water resources. In addition, even if materials are not used in a construction, excavation activities can uncover previously contained hazardous materials and hazardous waste may be released from the site.

Stagnant water. Construction may result in standing water on-site, which readily becomes breeding habitat for mosquitoes and other disease vectors; this is of particular concern as malaria is endemic in Rwanda.

Adverse impacts of materials sourcing. Construction requires a set of materials often procured locally: timber, fill, sand and gravel, bricks, etc. 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. Similarly, the operation of constructed facilities has a well-known set of potential adverse impacts.

Changes to air quality or noise levels. A wide range of decisions are likely to affect air quality and noise, including transportation options, electricity generation, building standards (heating), energy efficiency, and construction practices.

Improper waste management. General/institutional facilities and compounds generate a set of waste streams (e.g., gray water, latrine discharge, solid waste). In general, if improperly managed, such wastes can contaminate ground and surface water, create breeding habitat for disease vectors, etc. For example, if latrine design or maintenance failure permits insects or other disease vectors free in-and-out access to the pit/tank, pathogens in human waste can be spread within the compound and to the nearby community. Similarly, spilling latrine waste during pump-out releases contained pathogens into the environment. Storing solid waste (usually a mixture of food scraps, packaging, and paper) in open containers creates breeding habit for and attracts disease vectors such as rodents. Local erosion, including damage to adjacent fields, and sedimentation of nearby surface waters can also result. In general, the potential impacts of small-scale infrastructure construction and operation are controllable with basic good design and operating practices. However, the precise nature of the potential impacts—and the appropriate design and operating practices to mitigate them—are highly dependent both on location and the specific characteristics of the infrastructure.

TABLE 4G. POTENTIAL IMPACTS – Intervention Category 7

Sub-Intervention Categories	Potential environmental and social impacts
Sub-Intervention Category 7.1 Small-scale construction of cold storage facilities	See general construction impacts in the narrative above. **Impacts specific to cold storage facilities.** Cold storage facilities contribute indirect GHG emissions through the cooling load, fuel mix of electricity generation, and the efficiency of the plant. Cold storage facilities can also contribute to direct GHG emissions through loss of refrigerants.
Sub-Intervention Category 7.2 Small-scale construction (total surface area disturbed is 1000 m2 or less) of small slaughtering facilities; small agro-processing facilities, etc.	See general construction impacts in the narrative above. **Impacts specific to slaughtering facilities/agro-processing.** Slaughtering facilities and agro-processing facilities have a variety of impacts associated with operations including but not limited to: ● Solid waste production ● Wastewater production/liquid waste ● Water use ● Energy Consumption, GHG Emissions, and Air Pollution ● Consumer Health Risks ● Noise pollution and odors ● Occupational Health Hazards, Worker Health, and Safety ● Unlawful or Unfair Labor Practices These impacts and their corresponding mitigation measures are discussed in greater detail under Intervention Category 3 impacts and associated mitigation measures.

INTERVENTION CATEGORY 8: SMALL-SCALE IRRIGATION

TABLE 4H. POTENTIAL IMPACTS – Intervention Category 8

Sub-Intervention Categories	Potential environmental and social impacts
Sub-Intervention Category 8.1 Distribution and training on use of improved water management technologies (i.e., Solar irrigation pumps and drip irrigation, water catchment ponds to store water) Sub-Intervention Category 8.2 Construction of small-scale irrigation systems	In addition to the general risks from construction discussed in Intervention Category 7, irrigation schemes and water catchment ponds for water storage present several distinct environmental risks. **Water reservoirs**. Reservoirs are often used for multiple purposes including to supply irrigation water during dry seasons, provide power, and prevent flooding. Like other water diversions, reservoirs and their associated dams worsen low-flow states and add to the potential adverse impacts of reduced flooding. Reservoirs may be breeding grounds for vectors carrying diseases like malaria, schistosomiasis (bilharzia), and river blindness. **Agricultural runoff.** Loading water bodies with nutrients encourages algal blooms, which deplete life-giving dissolved oxygen and harm aquatic life and fisheries. These conditions are most severe in shallow and slow-moving water bodies, such as reservoirs and low-flow-regime rivers. Reservoirs may also become anaerobic (i.e., lacking oxygen) near the bottom due to decaying organic matter. When organic matter decomposes under these anaerobic conditions, the process yields hydrogen sulfide, methane and ammonia, all of which are poisonous to humans and aquatic organisms. **Mismanagement of water resources:** As a result of poor irrigation system design, poor water management and poor irrigation site choice (e.g., sloping lands that increase runoff), scarce water resources may be used inefficiently. There may be significant loss via leakage and evaporation from canals and storage dams, as well as poor water management by farmers within the scheme. Further, mismanagement that leads to a dearth of water can have significant impacts on ecosystems and local users. **Surface water sedimentation:** Runoff from croplands can carry sediment and farm chemicals into water bodies. The effects of sedimentation on rivers are compounded by any changes in flow regimes caused by irrigation structures. Increased sedimentation upstream can also clog irrigation intakes, pumps, filtration operations, and in-field channels downstream. **Insufficient water distribution.** Poor irrigation distribution uniformity can negatively impact crop yields. Lack of irrigation system maintenance, poor water quality, inadequate filtration,

	poor, or inefficient system operation, can all lead to decreases in distribution uniformity. Poor design, construction and placement of water inlet points for irrigation can all erode the soil at the head of an irrigated field. The eroded soil may accumulate in the middle or at the ends of the field where the water moves more slowly, interfering with in-field water distribution. **Water pollution.** As compared to non-irrigated crop production, the use of pesticides in the context of irrigation often presents heightened risks of surface or groundwater pollution. Irrigation can affect downstream water quality by reducing the amount of water available to dilute contaminants and by potentially increasing agrochemicals pollution. Irrigated agriculture can cause groundwater pollution. The magnitude of groundwater pollution associated with irrigated agriculture is dependent on a variety of factors, such as chemicals/materials applied to the land/crops, soil/aquifer characteristics, and water management. **Altered flow regimes**. Irrigation takes water from the already limited supply available during low-flow regimes. This may leave too little water for downstream uses such as drinking water, hydropower, transportation, and other irrigation projects. In addition, reduced water quantity often translates into reduced water quality, because there may not be enough water to dilute pollutants to acceptable limits. Turbidity also increases as flows are diminished. If the river is linked to wetlands or an estuary, reduction in water volume or quality may harm critical animal habitats, fisheries, and flora as well as drinking water supplies. **Altered water table**. Lowering the volume of water in rivers has a similar effect on groundwater levels. Less river water means less groundwater recharge and lower water tables. This may make springs and wells dry up, leaving people to collect water from more distant sources, or it may make water less potable, possibly increasing the risk from diseases such as guinea worm, schistosomiasis, dysentery and typhoid. Long-term reductions in water table levels can lead to land subsidence (slumping). Irrigation can also cause increased groundwater recharge from the unavoidable deep percolation losses occurring in the irrigation scheme. **Soil changes.** Poorly managed irrigation schemes can result in permanent adverse effects to soil quality (e.g., salinization, alkalinization, acidification, or waterlogging).

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 5: ENVIRONMENTAL DETERMINATIONS

Intervention Categories	Categorical Exclusion Citation (if applicable)	Negative Determination	Positive Determination [6]	Deferral [7]
Intervention Category 1: Programs involving nutrition, health care, or population and family planning	§216.2(c)(2)(viii)	☐	☐	☐
Intervention Category 2: Education, technical assistance, or training programs except to the extent programs include activities directly affecting the environment; analyses, studies, academic or research workshops and meetings; projects/programs intended to develop the capability of recipient countries to engage in development planning	§216.2(c)(2)(i, iii, xiv)	☐	☐	☐
Intervention Category 3: Support to small and medium agro-enterprise (including livestock), postharvest handling/storage, and support for climate smart ag and NRM practices		☒	☐	☐
Intervention Category 4: Activities associated with agricultural inputs such as seed production and supply, seed marketing, planting materials, fertilizers, and pesticides		☒	☐	☐
Intervention Category 5:		☒	☐	☐

[6] Positive Determinations require preparation of a Scoping Statement and Environmental Assessment.

[7] Deferrals must be cleared through an Amendment to this IEE prior to implementation of any deferred activities.

Provision of grants to CSOs, community-based organizations and private business				
Intervention Category 6: Policy reform, review, and advocacy in agricultural marketing and trade. financial reforms/support mechanisms		☒	☐	☐
Intervention Category 7: Small-Scale Construction		☒	☐	☐
Intervention Category 8: Small-Scale Irrigation (Affecting surface area of less than 25ha, or less than $250,000 total investment)		☒	☐	☐
DCAs are now governed by the Development Finance Corporation (DFC). DFC follows International Finance Corporation (IFC) environmental and social standards. The A/COR is responsible for ensuring that the activity complies with DFC's Environmental Compliance Procedures before proceeding with this activity				

4.2 CLIMATE RISK MANAGEMENT

This section summarizes the methodology used and findings of the CRM Screening, in accordance with ADS 201mal (see Annex 1). The project design team, in consultation with the Climate Integration Lead (CIL), considered the potential effect of climate risks/stressors on the sustainability of the project (changing precipitation patterns, rising temperature, floods, droughts, severe weathers, vulnerabilities, etc.). In addition to the impact of project activities on the climate (increased greenhouse gas emissions, land use changes, agricultural inputs etc.).

As described in USAID (2019), Rwanda is projected to experience the following changes in climate by mid-century: [8]

- Increased average annual temperature of 1.4– 2.3°C.
- Increased duration of heat waves by 7–22 days.
- Likely increase in average rainfall (range of -3 to +9 percent).
- Increased heavy rainfall event frequency (7–40 percent) and intensity (2–11 percent).
- Likely increase in the duration of dry spells with a range of 0 to +7 days.

Climate risks are more severe for vulnerable people, places, and systems (poverty, weak institutions, lack of infrastructure). More than sixty percent of the population lives below the poverty line and 70 percent depends on climate-sensitive agricultural production for their food and livelihood. Agriculture accounts for more than 30 percent of GDP, employs about 70 percent of the population, and generates about 50 percent of the country's export revenues. Most agricultural households rely on rainfed cultivation and the sector is hindered by variable rainfall, poor infrastructure, substantial post-harvest losses, and lack of access to inputs and

[8] Template (reliefweb.int)

finance. Rising temperatures, more frequent and intense heavy rains, and potentially increased duration of dry spells can severely threaten Rwandan agriculture.

Climate stressors (rising temperatures, variable rainfall, extreme natural hazards) pose risks to various sectors. For the agricultural sector, risks include shifts in growing seasons and decrease in duration of rainy season; decrease in crop yields, particularly for drought-sensitive crops tea and coffee (which account for more than 20 percent of export earnings) as agro ecological zones shift to higher elevation. In the water resources sector, risks include reduced surface water flow, increased water stress, increased risk of flooding, decrease of groundwater and available water in wetlands and reservoirs.

METHODOLOGY

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

- Project specific information, including available descriptions of project activities; and
- Climate and agriculture information, including USAID's Climate Risk Profile of Rwanda.[9]

Following this desk review, the IEE development team (ECOS and USAID) engaged in a facilitated process to confirm risks for each intervention category; to rate risks as high, moderate, or low; and to define appropriate actions to respond to risks rated high and moderate.

Engineering analysis preceding design activities must include consideration of climate change and its potential impacts on the location (siting), functionality and sustainability of resulting infrastructure and infrastructure services. Such analysis must include identification of relevant data sets and gaps, review of local building standards and codes for adequacy; and determination of safety factors or other measures of uncertainty that will be carried through design. The results of this analysis, including risks identified and how they are addressed, shall be documented.

[9] Ibid.

5.0 CONDITIONS AND MITIGATION MEASURES

5.1 CONDITIONS

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

5.1.1 During Pre-Award:

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

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

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

5.1.2 During Post-Award:

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

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

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

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

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

5.1.2.7 Work Plan Review: The A/COR will ensure the IP verifies, at least annually or when activities are added or modified, that activities remain within the scope of

the IEE. Activities outside of the scope of the IEE cannot be implemented until the IEE is amended.

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

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

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

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

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

5.2 AGENCY CONDITIONS

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

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

5.2.3 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.

5.2.4 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.

5.2.5 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, if required, the EA or PERSUAP.

INTERVENTION CATEGORY 1: PROGRAMS INVOLVING NUTRITION, HEALTH CARE, OR POPULATION AND FAMILY PLANNING

TABLE 5A. SUMMARY OF MITIGATION MEASURES FOR Intervention Category 1

Sub-Category	Mitigation Measure(s)
Sub-Intervention Category 1.1 Nutrition promotion activities through behavior change communication and nutrition training	Activities under Intervention Category 1 qualify as **Categorical Exclusion** and do not require associated mitigation measures.

INTERVENTION CATEGORY 2: EDUCATION, TECHNICAL ASSISTANCE, OR TRAINING PROGRAMS; WORKSHOPS AND MEETINGS; PROJECTS INTENDED TO DEVELOP THE CAPABILITY OF RECIPIENT COUNTRIES TO ENGAGE IN DEVELOPMENT PLANNING

TABLE 5B. SUMMARY OF MITIGATION MEASURES FOR Intervention Category 2

Sub-Category	Mitigation Measure(s)
Sub-Intervention Category 2.1 Technical assistance and capacity building to central government (Rwanda Agriculture Board, Rwanda Cooperative Agency), local government institutions	Activities under Intervention Category 2 qualify as **Categorical Exclusion** and do not require associated mitigation measures.
Sub-Int 2.2 TA and capacity	

building to communities' organizations and the private sector	
Sub-Intervention Category 2.3 Market research and information sharing	
Sub-Intervention Category 2.4 Work readiness training, technical training, job intermediation services, loan facilitation, mobilization of savings and loans groups, financial literacy training, coaching, mentoring, capacity building, certification & accreditation, curriculum revision, monitoring and evaluation, strengthening of linkages and referral networks, development of online resources, counseling, and compilation of information	

INTERVENTION CATEGORY 3: SUPPORT TO SMALL AND MEDIUM AGRO-ENTERPRISE (INCLUDING LIVESTOCK), POSTHARVEST HANDLING/STORAGE, AND SUPPORT FOR CLIMATE SMART AG AND NRM PRACTICES

TABLE 5C. SUMMARY OF MITIGATION MEASURES FOR Intervention Category 3

Sub-Category	Mitigation Measure(s)
Sub-intervention 3.1: Support to extension services, technical assistance and capacity building to farmers Sub-intervention 3.2: Support to small, and medium enterprises (SME), including Business Development Services (BDS) geared towards cooperative development; strengthen ties between value chain actors and market linkages; support to public private partnership activities Sub-intervention 3.3: Support for climate smart agriculture and natural resource management approaches (including: Soil erosion control including terracing, creating	**Negative Determination** subject to the following **conditions,** to be addressed in the project's EMMP: **Agricultural Extension.** Agricultural education and extension provide high-leverage channels to address appropriate environmental and occupational safety and health practices. Extension services should promote crops/varieties and approaches that are proven in practice to be appropriate to the agro-ecological zone and farmer capabilities. **Extension services focused on intensification**. The adoption of cash crops or other endpoints that involve increased use of fertilizers, pesticides, or mechanization should incorporate/promote the following mitigations: **Fertilizers:** 1. **Use/Promote Fertilizers Consistent with 4R Principles and, Whenever Possible, Within an Integrated Soil Fertility Management (ISFM) Framework** (see below). Use/Promote Fertilizers Consistent with 4R Principles and,

contour barriers including live barriers, agroforestry) Sub-Int 3.4: Use of ICT including apps that provide extension information on specific crops or access to precise weather, climate, and soil moisture data	Whenever Possible, Within an Integrated Soil Fertility Management (ISFM) Framework. (for additional information see pages 86 – 87 of the USAID Crop Production SEG). 2. **Provide Training.** Support for producer use of fertilizers must include training on safe and appropriate fertilizer use, including understanding the nature of fertilizers used, the methods of application, the proper timing of application, health and environmental risks of fertilizers, and appropriate storage and handling, including use of PPE. 3. **Provide and Require PPE.** 4. **Time Application Correctly.** Fertilizers should not be applied during periods of heavy rain, waterlogging, or unusual climatic conditions when the dangers of leaching, or other barriers to immediate take-up, are high. **5. Store Fertilizers Separately and Safely.** 6. **Maintain Distance.** Application or storage of agrochemicals should be a suitable distance from any watercourse including ditches (e.g. 10m) or drinking water supplies (e.g. 50m), especially when handling or applying fertilizers, organic wastes, pesticides, or other chemicals. 7. **Procure Quality Products.** 8. **Use Particular Care in the Context of Irrigation**. The risk of groundwater pollution due to nitrate leaching is often high with irrigation schemes where high rates of N-containing fertilizers are used. Care must be taken with the amounts of nitrogen-containing fertilizers used in conjunction with irrigation. **Pesticides**: **Any promotion of pesticide use must be done in coordination with the PERSUAP**. See: Rwanda Private Sector Driven Agricultural Growth (PSDAG) PERSUAP https://ecd.usaid.gov/repository/pdf/46391.pdf 1. **Safer Pesticide Use** is the complex of practices over the entire pesticide "life cycle", from sourcing to container disposal, that (1) minimizes pesticide use to circumstances necessary to preserve food security or prevent economic losses, and (2) assures that when pesticides are used, the pesticides chosen and the manner in which they are used present as few risks as possible to people, other non-target organisms, and the environment. Safer pesticide use requires at least all of the following: a. Use of pesticides within an integrated pest management (IPM) framework (see page 89 – 92 of the USAID Crop Production SEG for more information on IPM). b. Procurement of quality products labeled in a manner compliant with FAO-WHO guidance in a

language that can be read by the applicator.
   c. Use of non-expired products that are legal in the host country.
   d. Use per the product label.
   e. Use of well-maintained, properly calibrated, leak-free application equipment employed with proper technique.
   f. Practices to reduce spray drift, volatilization, and water pollution.
   g. Transport, storage, handling, mixing, clean-up and disposal conducted in a manner to minimize spills, human and environmental exposure. If spills occur they are contained.
   h. individuals trained in pesticide exposure first aid close at hand.
   i. Communication of risks to bystanders, including warning signage.

2. **Integrated Pest Management (IPM**). IPM is considered an effective way to manage pests while minimizing harm to humans, other non-target organisms and the environment. (see page 89 – 92 of the USAID Crop Production SEG for more information on IPM).

3. **Reduced-form Approaches to IPM are Still Beneficial**. Less rigorous or reduced-form approaches to IPM are still beneficial compared to “calendar spraying” (i.e. applying pesticides on a regular basis whether pests are present or not) or simply responding to infestations reactively, after damage has occurred.
   a. Practices to improve plant health and integrated soil fertility management;
   b. Use of resistant varieties, when available;
   c. Routine measures to prevent build-up of pest populations, such as crop rotation for annual crops or dormant season spraying with mineral oil for tree crops;
   d. Not killing beneficial predators with inappropriate pesticide application;
   e. Incorporation of practical non-chemical controls for pests of economic importance into cultivation practice;
   f. Monitoring for pest density/damage and
   g. Only when required, using a pesticide chosen for a combination of efficacy and safety.

Mechanization:

1. **Use Lighter Equipment, where Needed.** Where soil is highly compactable or landscape features fragile, lighter equipment, animal traction and/or hand tools should be employed rather than heavy equipment.
2. **Provision of pesticide application equipment** constitutes support for the use of pesticides and should therefore be addressed as described above**.**
3. **Store Fuels and Oils Properly.** To reduce the possibility of fire and explosion, fuels and oils should be stored away from sources of ignition (e.g. kitchens, work yards) in non-flammable tanks/structures To reduce risk of soil, surface water and groundwater contamination, tanks should be above ground. Storage structures should be built with spill containment and not be in riparian buffer zones or in areas prone to flooding or waterlogging.
4. **Maintain Equipment/Plan for Maintenance.** Both for safety and to reduce GHG and other pollutant emissions, powered equipment should be maintained—or when provided and handed over, there should be a plan and capacity for maintenance, including availability of spare parts**.**
5. **Use PPE and Teach Safe Operation.**
6. **Screen New Tools and Technologies.** All introductions of new technologies and machinery should be reviewed for environmental and social impacts over the lifetime the equipment is to be used, and appropriate mitigations beyond the minimum set enumerated on this basis.

If the focus of extension is **land and soil management techniques** intended to sustain or increase long-term farm productivity, extension services must, as indicated, incorporate/promote the following mitigations:

1. **Minimize land conversion.** Agricultural crop production activities will aim to increase crop production without expanding agricultural land and not at the expense of the traditional fallow. This will be achieved through increased productivity and boosting outputs from land that is already under production. To protect natural ecosystems, the activities will aim to limit shifting cultivation.
2. **Maintain Appropriate Riparian Buffers**. Maintenance of riparian buffers is extremely important both to control streambank erosion and to reduce surface water pollution. Riparian buffers also serve as a filter for excess nutrients and residues otherwise carried to surface waters by surface runoff and by subsurface flows.
3. **Prevent soil erosion and siltation into water bodies.** The techniques for controlling soil erosion will depend on the type of soil, topography, climatic conditions, and other factors. The USAID Crop Production SEG includes

additional information on soil erosion and siltation mitigation measures. Several appropriate methodologies may general include:

a. Crop rotation: grow a series of dissimilar or different types of crops on the same land in sequential years.
b. Conservation tillage: No-till, or conservation tillage, is when most of the crop residue is left on the surface of the field after harvesting and soils are left undisturbed before planting.
c. Plow on the contour: Where tillage is practiced, soil should be plowed along the contour instead of up and down slopes. This reduces the velocity of runoff and thus more water is retained in the soils and distributed more equally across the cropland. This practice also reduces erosion, loss of nutrients, and sedimentation of nearby waters.
d. Strip cropping, which consists of two (sometimes more) crops planted in alternating strips (usually 3-9m wide) in which each strip contains multiple rows of a single crop. Each season, the crop in each strip is rotated with a crop in a different strip.
e. Terrace farming: Terraces play an important role in soil conservation by reducing the length of the slope of the cultivated land, thereby reducing water and soil runoff. Because terracing has a significant potential to slow down land degradation and improve quality of life of local populations. Terracing requires careful long-term planning to avoid possible problems for the landscape and must be carefully constructed and maintained.
f. Diversion structures: A diversion is a long earthen embankment with a corresponding channel built across the slope to direct runoff water from, and to, a specific area. Diversions break up damaging volumes of runoff to reduce runoff and erosion damage, divert water away from vulnerable improvements, direct water to storage or harvesting systems, and can be used as supplemental water for conservation cropping systems. As with terrace farming, diversions must be correctly designed, constructed, and maintained.

4. **Preserve vegetation and natural habitats.** Crop production activities will aim to preserve and where possible increase vegetative strips that 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.

	5. **Follow USAID biodiversity policy.** IPs have the responsibility for ensuring that "U.S. development of assistance programs do not lead to the introduction of invasive species." An "invasive" species (also known as an alien, exotic, injurious, introduced or naturalized, non-native, nonindigenous, nuisance, or noxious species) refers to an organism that is introduced into an environment where it is not native. However, not all non-native species are invasive or harmful. Where there are concerns of introduction of non-native species into local environments, IPs will refer to USAID biodiversity policy guidelines available at: https://www.usaid.gov/biodiversity/policy. 6. **Control Leaching**. Leaching is the movement of contaminants, primarily water-soluble pesticides or fertilizers, carried by water through permeable soils. Site characteristics and soil types impact leaching. 7. **Introduce and promote integrated soil fertility management (ISFM).** ISFM is defined as a set of agricultural practices adapted to local conditions to maximize the efficiency of nutrient and water use and improve agricultural productivity. Additional information on how to implement ISFM can be found on pages 72-75 of the USAID Crop Production Sector Environmental Guidelines. 8. **Introduce and promote integrated water resources management (IWRM).** Activities that promote irrigation, particularly those that aim to move from rain-fed agriculture to irrigated agriculture will promote effective and efficient use of water for optimal production and yields, with consideration for impacts on other water users, including water users downstream. Where appropriate, a situation analysis that considers water rights, water needs, appropriate irrigation systems and water capacity assessment should be conducted. 9. **Introduce and promote Integrated Crop Management (ICM)**. Agricultural projects should aim to adopt approaches that incorporate land, soil, seed, and plant materials management and cropping and crop protection strategies that contribute to sustainability and resilience to climate change. 10. **Safer pesticide use, including integrated pest management** (see above). 11. **Applying more sustainable agricultural practices to specific crops**. For each crop, manuals and guidelines are generally available and should be consulted. **Mitigation of social impacts.** Where appropriate, through their cross cutting activities, adverse social impacts will be considered during the pre-implementation process and design and documented. The findings of existing gender analyses (e.g.

	as mandatory for USAID Activities per ADS 205) should be integrated into activity design and mitigation measures incorporated into the activity EMMP. Agricultural activities will sensitize communities and their disadvantaged members to their legal land rights and help build civil society oversight. A condition of assistance to cooperative and individual producers should be that children may not provide agricultural labor during school hours. **Design for Avoidance and Monitor Indirect Impacts.** Design and site selection should avoid culturally significant sites and landscape features. Where this is not possible, many host countries have specific legal requirements that apply when projects may impact sites of cultural significance; these requirements must be met and, at minimum, a mitigation approach informed by appropriate consultations must be developed and implemented. For more information on mitigation strategies associated with activities engaging Crop Production, the USAID Sector Environmental Guidelines (SEG) for Crop Production, is available at: https://www.usaid.gov/environmental-procedures/sectoral-environmental-social-best-practices/seg-crop-production/pdf For activities engaging in Small-Scale Dryland Agriculture, follow relevant practices as outlined in USAID Sector Environmental Guidelines Small-Scale Dryland Agriculture (2014) available at: https://www.usaid.gov/environmental-procedures/sectoral-environmental-social-best-practices/seg-dryland-agriculture/pdf
Sub-activity 3.5: Support the promotion of agribusiness technologies including post-harvest, handling, and storage at cooperative level; small agro-processing	**Negative Determination** subject to the following **conditions,** to be addressed in the project's EMMP: **Conduct screening.** All introductions of post-harvest technologies and use of machinery must be screened for environmental and social impacts over the lifetime use of equipment assessing its potential impacts on air, water, and soil pollution, labor safety and sustainability. **Research and Apply Relevant Innovations in More Sustainable Harvest and Postharvest Practices**. Such practices reduce crop losses, preserve food, reduce contamination, and/or increase food safety while increasing efficiency, controlling costs, and conserving energy. Examples of more sustainable postharvest practices include the modification of harvesting procedures, such as harvest time, or strip harvesting (where crops are harvested in alternate strips), so that two different-aged growths occur simultaneously in a

field. Expensive and complex postharvest technologies can be difficult for smallholders to adopt. Therefore, it is likely more advantageous to consider small-scale postharvest tools and innovations.

Inspect to Identify Environment, Health, and Safety (EHS) and Food Safety Deficits, Make Support Conditional on Corrections. Where support is provided to specific existing facilities or operations, conduct a pre-support environment, occupational health/safety and food safety inspection to identify compliance and performance deficits. Consider providing technical assistance or training to address these deficits. In any case, direct support to facilities and operations should generally be conditional on their specific agreement to correct such deficits. Where support is rather provided in a more general way to this value chain segment, EHS and food safety deficits across the segment should be characterized generally, and actions incorporated into activity design to help address these deficits. This may include support to government capacity to better support and enforce appropriate EHS and food safety performance.

Review and Apply as Relevant the Food Processing RECP Briefing and Resource Guide. Part of the USAID SEG series, this document provides guidance for identifying and addressing unhealthy working conditions, excess water use, poor process control, inadequate machinery maintenance, and liquid and solid wastes within a RECP framework. RECP interventions focus on (1) increasing the efficiency with which resources are utilized and/or (2) assuring that resources are utilized “cleanly”—without incurring costs and impacts that adversely affect the bottom line of the enterprise, the environment, and worker and community health and safety. The RECP briefing is focused on food processing and MSMEs but has significant applicability to storage and logistics operations as well, and at larger scales.

Promote Food Safety. A consistent, robust focus on food safety is essential to mitigating the risks to public health intrinsic in crop harvest, handling, storage, and processing operations. The form this take depends on the specific facilities, operations, and/or actors being supported. However, in the private sector, the emphasis will generally be on implementation of recognized management systems that incorporate the key food safety principles of hygiene, prevention, risk reduction, reliability, consistency, traceability, customer and consumer relevance, transparency, and accountability. For example, Hazard Analysis and Critical Control Points (HACCP) is a systematic preventive approach to food safety from biological, chemical, and physical hazards in production processes. In many cases, supporting

certification to particular systems or schemes is appropriate.

Reducing Impacts of Energy Use in Crop Production.

1. **Use Efficient, Clean-burning Equipment.** Equipment that is efficient requires less fuel or energy per unit of output—meaning that less fuel is burned, and consequently emissions and impacts are reduced. Equipment that is clean-burning also emits fewer non-GHG air pollutants.
2. **Use Renewable Energy Sources.** After solar energy for photosynthesis, fossil fuels are currently the primary energy source in agriculture. Use of renewable energy sources, when possible, can avoid many of the GHG emissions and other environmental impacts of fossil fuel use.
3. **Sequester Carbon.** Increasing the carbon stored in a farm's soil and long-term biomass can partially offset the carbon emissions that result from energy inputs to crop production.

Pest Control Aspects. To the extent that support involves support to pest management, or the operations supported require pest management, safer pesticide use (see above) is a required mitigation strategy. In the structural context, IPM includes good sanitation practices, pest-resistant storage, and in some cases, biological controls. **NOTE:** (1) USAID's pesticide procedures apply not just to field production, but to structural pest control and pest management in stored commodities; and (2) USAID-supported phosphine fumigation of food commodities must conform to the requirements of the agency's USAID's Phosphine Fumigation of Stored Agricultural Commodity Programmatic Environmental Assessment (PEA).

Rwanda PSDAG PERSUAP:
https://ecd.usaid.gov/repository/pdf/46391.pdf

Develop a waste management plan. All postharvest and food processing actions where waste is generated will have a waste management plan. The waste management plan will address appropriate handling, management, and disposal of waste and air, soil, water, and odor pollution from waste, as appropriate. When necessary the plan will also include plans for disease vector control. The USAID Integrated Waste Management Plan template should be integrated into a project's EMMP.
Develop resource conservation plan. Post-harvest handling and storage interventions will incorporate cleaner production, energy efficiency, and water minimization best practices.

Ensure employee safety. Through regular training and

	communication, ensuring employee health and safety and addressing identified adverse social impacts will be integrated into development and support of value chains based on natural products. Support for micro and small-scale processing enterprises will follow guidelines outlined by the USAID "Food processing resource efficient and cleaner production briefing and resource guide for micro & small enterprises" available at: https://www.usaid.gov/environmental-procedures/sectoral-environmental-social-best-practices/mse-food-processing/pdf**.**
Sub-activity 3.6: Demonstration of model farms for livestock (poultry, fish, pigs, rabbits and goats)	**Negative Determination** subject to the following **conditions,** to be addressed in the project's EMMP: **Assess the carrying capacity of ecosystems.** Where scale up is anticipated – including livestock production and increased diversity of livestock holdings – Implementing Partners must assess 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, greenhouse gas (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. **Integrate sustainable livestock management.** Implementing Partners (IPs) engaged in actions of intensification of livestock production or leading to intensification of livestock production must, where practicable, integrate improved rangeland management, feed management, and water resources management into their programs. **Ensure water protection.** 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, fencing, proper disposal of veterinary drugs and pesticides, manure disposal, carcasses disposal). **Follow USAID biodiversity policy.** 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. https://www.usaid.gov/biodiversity/policy. **Limit disease spread**. Workers must practice good animal husbandry and properly managing manure. **Integrated practices aimed at minimizing greenhouse emissions.** The project will introduce practices aimed at minimizing GHG emissions (e.g., improved animal nutrition,

	manure management, pasture management). **Engage stakeholders for conflict prevention.** IPs will conduct a consultation with stakeholders prior to initiation of livestock intensification or fodder production involving shared community resources. **Minimize public nuisances.** Suitable sites for location of livestock and poultry farms should be selected away from sensitive receptors and population centers. Where appropriate, animals should be tied or fenced in. The following practices should be promoted and implemented to limit public nuisance: Maintain clean and tidy farm sites, cleaning up spillages rapidly; maintain and clean farm vehicles to reduce vehicle odors; cover wastes when transporting; limit noisy activities to the least noise- sensitive times of the day (week days between 7am and 10pm); avoid or effectively control potentially adverse operation effects on existing landscape character and visual receptors where possible (e.g., mitigation planting of local tree species to reduce the landscape and visual impacts); dispose of animal carcasses in accordance with local regulations; bedding from cleaning of the sheds should be regularly collected; and manure should be collected daily and carted away to a dedicated storage area. The awardee/IPs engaged in livestock production actions will follow relevant practices and assure implementation of environmental mitigation and monitoring conditions specified in the USAID Sectoral Guideline for Livestock (2015) available at: https://www.usaid.gov/environmental-procedures/sectoral-environmental-social-best-practices/seg-livestock/pdf; and the Environmentally Sound Design (ESD) Sector Environmental Guidelines Small-Scale Dryland Agriculture (2014) available at: https://www.usaid.gov/environmental-procedures/sectoral-environmental-social-best-practices/seg-dryland-agriculture/pdf

INTERVENTION CATEGORY 4: ACTIVITIES ASSOCIATED WITH AGRICULTURAL INPUTS SUCH AS SEED PRODUCTION AND SUPPLY, SEED MARKETING, PLANTING MATERIALS, FERTILIZERS, AND PESTICIDES

TABLE 5D. SUMMARY OF MITIGATION MEASURES FOR Intervention Category 4

Sub-Category	Mitigation Measure(s)
Sub-Int 4.1: Promotion of agriculture inputs, including high yielding seeds, fertilizers, and nutrients	**Negative Determination** subject to the following **conditions,** to be addressed in the project's EMMP: **Procure from or establish reputable seed producers.** Activities will aim to ensure that farmers are directed to

Sub-Int 4.2: Distribution and training on use of improved agricultural technologies (i.e., seeds that are drought tolerant and pest and disease resistant, mulching, cover cropping, small-scale mechanization, building green houses, measured use of organic and chemical fertilizers)	purchase seed stock from a reputable seed dealer who has proper cleaning, handling, and storage facilities, or will aim to support establishing such reputable sources. **Ensure seed labeling.** Seeds recommended to farmers should be labeled for germination percent, crop seed, weed seed and inert matter content, and the date of germination test. **Follow USAID biodiversity policy.** For instance, do not introduce invasive species and consider long-term implications of introducing new seed and plant materials. See: https://www.usaid.gov/biodiversity/policy **Focus plant breeding programs on low input sustainable agriculture.** In addition to focusing plant breeding programs on higher productivity, breeding programs should focus on developing and promoting genotypes adapted to specific agricultural environments and lower input requirements. See: Rwanda PSDAG PERSUAP for additional agricultural issues:_ https://ecd.usaid.gov/repository/pdf/46391.pdf
Sub-int 4.3: Demonstration plots for different type of fertilizers and nutrients	**Negative Determination** subject to the following **conditions**: **Minimize land conversion.** Agricultural crop production activities will aim to increase crop production without expanding agricultural land and not at the expense of the traditional fallow. This will be achieved through increased productivity and boosting outputs from land that is already under production. To protect natural ecosystems, the activities will aim to limit shifting cultivation. **Preserve vegetation and natural habitats.** Crop production activities will aim to preserve and where possible increase vegetative strips that 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. **Follow USAID biodiversity policy.** IPs have the responsibility for ensuring that “U.S. development of assistance programs do not lead to the introduction of invasive species.” An “invasive” species (also known as an alien, exotic, injurious, introduced or naturalized, non-native, nonindigenous, nuisance, or noxious species) refers to an organism that is introduced into an environment where it is not native. However, not all non-native species are invasive or harmful. Where there are concerns of introduction of non-native species into local environments, IPs will refer to USAID biodiversity policy

guidelines available at: https://www.usaid.gov/biodiversity/policy.

Prevent soil erosion and siltation into water bodies. The techniques for controlling soil erosion will depend on the type of soil, topography, climatic conditions, and other factors. The USAID Crop Production SEG includes additional information on soil erosion and siltation mitigation measures. Several appropriate methodologies may general include:

- Crop rotation: grow a series of dissimilar or different types of crops on the same land in sequential years
- Conservation tillage: No-till, or conservation tillage, is when most of the crop residue is left on the surface of the field after harvesting and soils are left undisturbed before planting
- Plow on the contour: Where tillage is practiced, soil should be plowed along the contour instead of up and down slopes. This reduces the velocity of runoff and thus more water is retained in the soils and distributed more equally across the cropland. This practice also reduces erosion, loss of nutrients, and sedimentation of nearby waters.
- Strip cropping, which consists of two (sometimes more) crops planted in alternating strips (usually 3-9m wide) in which each strip contains multiple rows of a single crop. Each season, the crop in each strip is rotated with a crop in a different strip.
- Terrace farming: Terraces play an important role in soil conservation by reducing the length of the slope of the cultivated land, thereby reducing water and soil runoff. Because terracing has a significant potential to slow down land degradation and improve quality of life of local populations. Terracing requires careful long-term planning to avoid possible problems for the landscape and must be carefully constructed and maintained.
- Diversion structures: A diversion is a long earthen embankment with a corresponding channel built across the slope to direct runoff water from, and to, a specific area. Diversions break up damaging volumes of runoff to reduce runoff and erosion damage, divert water away from vulnerable improvements, direct water to storage or harvesting systems, and can be used as supplemental water for conservation cropping systems. As with terrace farming, diversions must be correctly designed, constructed, and maintained.

Introduce and promote integrated soil fertility management (ISFM). Agricultural activities will aim to replace continuous soil nutrient mining with appropriately managed use of fertilizer, organic inputs and improved seed and plant materials,

	combined with introducing knowledge on how to adapt these practices to local conditions. **Introduce and promote integrated water resources management (IWRM).** Activities that promote irrigation, particularly those that aim to move from rain-fed agriculture to irrigated agriculture will promote effective and efficient use of water for optimal production and yields, with consideration for impacts on other water users, including water users downstream. Where appropriate, a situation analysis that considers water rights, water needs, appropriate irrigation systems and water capacity assessment should be conducted. **Introduce and promote Integrated Crop Management (ICM)**. Agricultural projects should aim to adopt approaches that incorporate land, soil, seed, and plant materials management and cropping and crop protection strategies that contribute to sustainability and resilience to climate change. **Mitigation of social impacts.** Where appropriate, through their cross cutting activities, agricultural activities will sensitize communities and their disadvantaged members to their legal land rights and help build civil society oversight. Where deemed warranted situation specific social impact assessments will be conducted.

INTERVENTION CATEGORY 5: PROVISION OF GRANTS TO CSOS, COMMUNITY-BASED ORGANIZATIONS AND PRIVATE BUSINESS

TABLE 5E. SUMMARY OF MITIGATION MEASURES FOR Intervention Category 5

Sub-Category	Mitigation Measure(s)
Sub-intervention category 5.1: Provide sub-grants activities to local CSOs and national CSOs	**Negative Determination** subject to the following **conditions,** to be addressed in the project's EMMP:
Sub-intervention category 5.2: Provision of small grants to community-based organizations and private businesses (e.g., micro-franchises).	Grant solicitations should establish criteria for meeting environmental compliance requirements and include appropriate evaluation criteria. IPs providing grants must ensure integration of environmental compliance responsibilities in grants' contracts. IP should utilize the Africa Bureau Environmental Review Form and Instructions provided in Annex 2 to screen sub-grant applications and assist grantees with establishing baseline conditions and

	screening for activity specific impacts. IPs should assist grantees with developing EMMPs to ensure environmental, health, and safety safeguards are adequately programmed, and will ensure that grant recipients report on EMMP implementation by review of the EMMPs and periodic unscheduled field visits where appropriate.

INTERVENTION CATEGORY 6: POLICY REFORM, REVIEW, AND ADVOCACY IN AGRICULTURAL MARKETING AND TRADE. FINANCIAL REFORMS/SUPPORT MECHANISMS

TABLE 5F. SUMMARY OF MITIGATION MEASURES FOR Intervention Category 6

Sub-Category	Mitigation Measure(s)
Sub-int 6.1: Support agricultural development policies and agribusiness standards Sub-int 6.2: Research development for policy reforms Sub-int 6.3: Facilitation of inclusive policy reforms drawing on evidence-based analysis and strengthened advocacy capacity within private sector organizations Sub-int 6.4: Support relevant policy reform efforts and public-private dialogue Sub-int 6.5: Assist the GOR to develop and strengthen financial de- risking and bond instruments Sub-int 6.6: Support of local actors to attract, mobilize, and direct public and private financing resources. Interventions will address gaps identified in the areas of investment promotion and mobilization in GOR agencies and within their investment programs	**Negative determination**, subject to the following **conditions**: When USAID supports policy reform in partnership with other actors, including the host country, civil society, and the private sector, any policy reforms that influence, impact, or inform agricultural initiatives, infrastructure and facilities should consider existing agricultural capacity and guidelines on use of inputs (e.g., fertilizers, pesticides). For more information on mitigation strategies associated with activities engaging Crop Production, the USAID Sector Environmental Guidelines (SEG) for Crop Production, is available at: https://www.usaid.gov/environmental-procedures/sectoral-environmental-social-best-practices/seg-crop-production/pdf For activities engaging in Small-Scale Dryland Agriculture, follow relevant practices as outlined in USAID Sector Environmental Guidelines Small-Scale Dryland Agriculture (2014) available at: https://www.usaid.gov/environmental-procedures/sectoral-environmental-social-best-practices/seg-dryland-agriculture/pdf See: Rwanda PSDAG PERSUAP for additional agricultural issues: https://ecd.usaid.gov/repository/pdf/46391.pdf

INTERVENTION CATEGORY 7: SMALL-SCALE CONSTRUCTION

TABLE 5G. SUMMARY OF MITIGATION MEASURES FOR Intervention Category 7

Category/Sub-Category	Mitigation Measure(s)
Intervention category 7: Small-scale construction	**Negative Determination** subject to the following **conditions,** to be addressed in the project's EMMP: **No complicating factors**. The site is not within 30m of a permanent or seasonal stream or water body, will not involve displacement of existing settlement/inhabitants, has an average slope of less than 5% and is not heavily forested, in an otherwise undisturbed local ecosystem, or in a protected area. Construction will be undertaken in a manner generally consistent with the guidance for environmentally sound construction, provided in the USAID Sector Environmental Guideline: Construction. (https://www.usaid.gov/environmental-procedures/sectoral-environmental-social-best-practices/seg-construction/pdf). At minimum, (1) during construction, prevent sediment-heavy run-off from cleared site or material stockpiles to any surface waters or fields with berms, by covering sand/dirt piles, or by choice of location (only applies if construction occurs during rainy season); (2) construction must be managed so that no standing water on the site persists more than 4 days; (3) IPs must require their general contractor to certify that it is not extracting fill, sand or gravel from waterways or ecologically sensitive areas, nor is it knowingly purchasing these materials from vendors who do so; (4) IPs must identify and implement any feasible measures to increase the probability that timber is procured from legal, well-managed sources. **Asbestos**. If the presence of asbestos is suspected in a facility to be renovated, the facility must be tested for asbestos before rehabilitation works begin. Should asbestos be present, then the work must be carried out in conformity with Government of Rwanda requirements, and in conformity with guidance to be provided by the MEO, in consultation with the REA. All results of the testing for asbestos shall be communicated to the C/AOR. **Paint**. No lead-based paint shall be used. When lead-free paint is used, it will be stored properly to avoid accidental spills or consumption by children; empty cans will be disposed of in an environmentally safe manner away from areas where contamination of water sources might occur; and the empty cans will be broken or punctured so that they cannot be reused as drinking or food containers. **Water supplies.** Where water supplies for drinking or other uses are upgraded or provided, the conditions applying to Intervention Category 9 WASH interventions also apply. **Waste handling equipment and infrastructure**. USAID intervention must result in the facilities' possessing adequate provision for handling the wastes they may generate, including

	human wastes. Sanitation facilities are subject to the conditions applying to latrines (see Intervention Category 9 WASH below). **No burnt brick**. Burnt brick shall not be used as a primary construction material. Limited use of burnt brick when alternatives are not feasible or suitable is permitted. **Worker Safety, PPE Use, and Sanitation.** Train workers on safe work practices, the proper use of personal protective equipment (PPE), worker safety and health protections under law, and worker obligations. **Public Safety.** Raise awareness of upcoming traffic impacts and risks (e.g., signage, communications with local authorities, community groups, and local media). Adopt best transport safety practices across all aspects of project operations with the goal of preventing traffic accidents and minimizing injuries suffered by project personnel and the public. Implement speed restrictions for all project-related traffic. Restrict public access to the site (e.g., fencing, signs, on-site guard). Ensure there is a process (grievance mechanism) through which stakeholders and affected communities can log grievances with the project. **Waste Management.** Identify waste handling facilities close to the project to accept/treat waste. Review the locally available reuse/recycling facilities to ensure they can accept the waste streams. Seek ways to reduce raw material consumption. Implement procurement measures such as ordering the correct amount of materials to be delivered when needed. Substitute raw materials or inputs with less hazardous or toxic materials wherever economically and technically feasible. **Air Quality.** During planning, identify sensitive receptors and obtain baseline air quality information. During the engineering/design phase, minimize extent of material handling, and avoid double handling. During pre-construction, plan the site layout with dust causing components located away from sensitive receptors where practicable. During construction, provide personal protective equipment (PPE) such as dust masks to workers on-site, where dust levels are likely to be excessive. Cover stockpiles/seeds to prevent wind whipping. Minimize dust generating activities where possible and avoid leaving vehicles idling when not in use to reduce air pollution. **Fuel Storage and Spill Response.** Establish procedure for reporting any environmental incidents related to spills/leakages and how to deal with any spills/leakages. Store all fuels and oils in appropriate tanks away from watercourses and inspect storage tanks regularly.

	Erosion Control. Where erosion is a concern, develop a sedimentation and erosion control plan outlining the use of site-specific erosion control measures (e.g. use straw/agricultural waste bales, silt traps, drainage ditches where appropriate.) Facilities intended for storage of pesticides must conform to the requirements for such facilities set out in the 2020 Best Management Practices (BMP) Manual (also available by searching here: https://www.pmi.gov/resources/technical-documents/).
Sub-intervention category 7.1: Small-scale construction of cold storage facilities	In addition to the mitigation measures outlined in Intervention Category 7 above, the following mitigation measures apply to the construction of small-scale cold storage facilities: To reduce indirect GHG emissions, consider designing the cold storage facilities to maximize energy efficiency, consider reducing energy usage by operating the store at times of lower energy tariffs ('load shifting'), and by relying on green energy alternatives to fuel energy consumption. Additionally, use environmentally friendly refrigerants with low global warming potential (GWP) and low ozone depletion potential (ODP).[10]
Sub-intervention category 7.2: Small-scale construction (total surface area disturbed is 1000 m2 or less) of small slaughtering facilities; small agro-processing facilities, etc.	In addition to the mitigation measures outlined in Intervention Category 7 above regarding construction, small-scale slaughtering and agro-processing facilities must conform to applicable mitigation measures outlined under Intervention Category 3 pertaining to agro-enterprise.

INTERVENTION CATEGORY 8: SMALL-SCALE IRRIGATION

TABLE 5H. SUMMARY OF MITIGATION MEASURES FOR Intervention Category 8

Sub-Category	Mitigation Measure(s)
Sub-Intervention Category 8.1: Distribution and training on use of improved water management technologies (i.e. Solar irrigation pumps and drip irrigation, water catchment ponds to store water)	**Negative Determination** with Conditions, as follows: 1. Construction of small-scale irrigation systems should follow the minimum general mitigation measures for small-scale construction outlined under Intervention Category 7 above. 2. The awardee/IPs engaged in water availability for agriculture and upgrading and/or introducing small-scale irrigation technologies will follow best practices and assure implementation of environmental mitigation and monitoring conditions specified in USAID Sectoral Guidelines for Crop Production (https://www.usaid.gov/environmental-
Sub-intervention Category 8.2: Construction of small-scale irrigation system	

[10] https://wedocs.unep.org/bitstream/handle/20.500.11822/32568/8138Warehouse_EN.pdf?sequence=1

procedures/sectoral-environmental-social-best-practices/seg-crop-production/pdf)

3. Prior to creation of the supply pond, the IPs or their designated contractors, must obtain all required applicable authorizations, licenses and permits from the local authorities.
4. Water catchment pond siting assessments must address:
    a. site selection and design measures to prevent contamination of groundwaters from seepage,
    b. minimizing dust, erosion, and sedimentation
    c. minimizing damage to sensitive wetland ecosystems,
    d. mitigation measures to prevent runoff into ponds (e.g., barriers or vegetative plantings, fabric covers, buffer strips, contour drains)
5. Irrigation projects should be planned and managed with community participation in the context of overall regional development plans, including both the upland catchment areas and the catchment areas downstream and will consider the role of the community in construction and management of the system and mechanisms for potential conflicts resolution.
6. The planning process should consider the capacity of land and water resources and their seasonal water variability to support irrigation for the number of users, optimum scale of the scheme, and potential impacts on the soils.
7. The following considerations should be integrated as appropriate in developing irrigation projects:
    a. locating the irrigation project on the site where negative impacts are minimized;
    b. improving the efficiency of existing projects and restoring degraded croplands to use rather than establishing a new irrigation project;
    c. developing small-scale, individually-owned irrigation systems as an alternative to large-scale, publicly-owned and managed schemes;
    d. using micro-irrigation systems to decrease the risk of waterlogging, erosion and inefficient water use;
    e. using treated wastewater, where appropriate, to make more water available to other users; training farmers in water management
8. Water quality should be tested on an annual basis, however in locations where water quality tends to be low, more frequent testing should be conducted. The parameters of importance for irrigation water testing include: salinity, infiltration, specific ion toxicity, and

	other parameters depending on the scale and type of irrigation system.

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);
- 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: Project Climate Risk Management Summary Table

Annex 2: AFR Environmental Review Form

Annex 3: Mechanisms Covered Under the Prosper Program

ANNEX 1. PROJECT CLIMATE RISK MANAGEMENT SUMMARY TABLE

Defined or Anticipated Project Elements[11]	Climate Risks[12]	Risk Rating[13]	How Risks are Addressed at Project Level[14]	Further Analysis and Actions for Activity Design/ Implementation[15]	Opportunities to Strengthen Climate Resilience[16]
Intervention Category 1: Programs involving nutrition, health care, or population and family planning Sub-Intervention 1.1: Nutrition promotion activities through behavior change communication and nutrition training	Climate change may have impacts on nutrition promotion activities, such as increased drought resulting in reduced agricultural yield, that may result in underperforming interventions unless these climate risks are incorporated into the activity. Increased temperatures, and variability in rainfall, as well as increased intensity, duration, and/or frequency of extreme climate-related events such as droughts or floods may disrupt logistic networks to deploy staff and equipment, impede access routes, and	Low	NA	Consider scheduling field events to avoid the rainy season and extreme temperatures. When possible, minimize the number of trips made and incorporate opportunities for virtual events. Ensure timely communication of climate risks to training participants. Consider developing virtual training to reduce dependency on in-	Encourage the inclusion of climate change information and disaster preparedness in behavior change communication and nutrition training.

[11] Purpose/Sub-purpose, Area of Focus, or Activity/ Mechanism, etc.
[12] List key risks related to the project elements identified through either the strategy- or project-level climate risk assessment.
[13] Low/Moderate/ High
[14] Describe how risks have been addressed at the project level. If a decision has been made to accept the risk, briefly explain why.
[15] Describe CRM measures to be integrated into activity design or implementation, including additional analysis, if applicable.
[16] Describe opportunities to achieve development objectives by integrating climate resilience or mitigation measures.

	damage behavior change communication and sites targeted for nutrition training. Increased frequency and severity of extreme events, such as flooding, may cause health stressors on training participants and their families, thus straining their ability to attend training.			person capacity building events.	
Intervention Category 2: Education, technical assistance, or training programs except to the extent programs include activities directly affecting the environment; analyses, studies, academic or research workshops and meetings; projects/programs intended to develop the capability of recipient countries to engage in development planning <u>Sub-intervention 2.1:</u> Technical assistance and capacity building to central government (Rwanda Agriculture Board, Rwanda Cooperative Agency), local government institutions	Increased temperatures and variability in rainfall, as well as increased intensity, duration, and/or frequency of extreme climate-related events such as droughts or floods may disrupt power and communication networks, disrupt logistics networks to deploy staff and equipment, impede access routes, for trainers and workers, and damage structures that host capacity building activities. Increased frequency and severity of extreme events, such as flooding, may cause health stressors on Rwanda Agriculture Board, Rwanda Cooperative	Low	NA	Develop indicators to monitor inclusion of CRM considerations and measures into activity implementation. Consider developing virtual trainings to reduce dependency on in-person capacity building events. Ensure timely communication of climate risks between project teams and beneficiaries.	Account for climate change in research and assessments. Use climate change concern as an opportunity to engage civil society, private sector, loans groups and referral networks, including marginalized populations, to increase their involvement in planning and local government.

Sub-intervention 2.2: TA and Capacity Building to communities' organizations and private sector Sub-intervention 2.3: Market research and information sharing Sub-intervention 2.4: Work readiness training, technical training, job intermediation services, loan facilitation, mobilization of savings and loans groups, financial literacy training, coaching, mentoring, capacity building, certification & accreditation, curriculum revision, monitoring, and evaluation, strengthening of linkages and referral networks, development of online resources, counseling, and compilation of information.	Agency, local government institutions, communities, and their families, thus straining their ability to attend trainings. Flooding and severe weather events could cause damage and destruction of communications hardware and software, loan facilitation, literacy training, development of online resources important in the analyses, studies, academic or research workshops and meetings. Increased temperatures, frequency and severity of flooding, and drought may have negative impacts on livelihoods such as agriculture, reducing the ability of communities to participate in training.				
Intervention Category 3: Support to small and medium agro-enterprise (including livestock), including support for climate smart ag and NRM practices	Increased frequency and severity of flooding may block access routes or damage buildings, limiting ability to gather for trainings.	Moderate	Access to precise weather, climate, and soil moisture data (FARMTIME).	Early warning system that provides accurate, timely, and relevant information on drought and flood risks. Increase communication btw	Collaborate with local governments, private sector, community members and farmer

Sub-Int 3.1: Support to extension services, technical assistance and capacity building to farmers Sub-Int 3.2: Support to small, and medium enterprises (SME), including Business Development Services (BDS) geared towards cooperative development; strengthen ties between value chain actors and market linkages; support to public private partnership activities Sub-Int 3.3: Support for climate smart agriculture and natural resource management approaches (including: Soil erosion control including terracing, creating contour barriers including live barriers, agroforestry) Sub-Int 3.4 Use of ICT including apps that provide extension information on specific crops or access to precise weather, climate, and soil moisture data Sub-Int 3.5: Support the promotion of agribusiness technologies including post-harvest, handling, and storage	More frequent and severe droughts and floods, higher temperatures, and changes in groundwater and runoff can affect agriculture. This can negatively impact rural populations that rely on agriculture for their food and livelihoods. This could affect potential community outreach and training. Climate change poses risks to livestock due to flooding (which can stress livestock and cause livestock death) and increased drought (which can reduce pasture availability). Changing climatic conditions (e.g., shifting precipitation patterns, increased temperatures, increased frequency/severity of storms, etc.) may have adverse impacts on the productivity of livestock production. Climate change may increase disruptions to post-harvest food processes as flooding can		Provision of training on climate-smart agriculture and natural resource management approaches (including: Soil erosion control including terracing, creating contour barriers including live barriers, agroforestry) (FARMTIME).	mete and decision-makers/end users (farmers). Incorporate climate risk management awareness and training in all training curriculum for supporting small and medium agro-enterprise, farmers, private sector, and community members about climate risks. Build capacity of farmers on climate-smart agriculture and diversify the high value crops and vegetables farming to small farmers. Develop indicators to monitor how climate change affect the productivity of high value crops and vegetable at farm and market levels.	associations to use of climate data in planning and management of small, and medium enterprises (SME), including Business Development Services, model farms for different type of livestock. Provide timely weather information (weather and climate information) to pastoralists using results of monitoring from early warning systems. The project to consider appropriate breeds to promote such as animals and breeds that can manage heat

at cooperative level; small agro-processing <u>Sub-Int 3.6:</u> Demonstration of model farms for different type of livestock (poultry, fish, pigs, rabbits, and goats)	damage food storage structures and impede travel routes and extreme heat may result in faster food spoilage. Climate change may alter temperature and precipitation patterns that, if not incorporated into research and assessments, may result in maladaptation or underperforming interventions and training.			When selecting breeds for livestock training, consider future climate conditions (e.g., temperature, precipitation patterns and groundwater availability, types of potential pests and diseases) that might occur where husbandry will occur; once locations are identified, monitor selected species to assess their adaptability to climate conditions. Design livestock support to be adaptable to changing climate conditions and to incorporate climate resilience across various conditions. Consult with a livestock or poultry specialist on breed selection and fodder/nutrition requirements that are compatible with climate projections.	stress or have lower water requirements (e.g., chickens, goats, sheep - not cattle).

				Encourage selection of breeds and fodder based on both current and future profitability given climate projections.	
Intervention Category 4: Activities associated with agricultural inputs such as seed production and supply, seed marketing, planting materials, fertilizers, and pesticides Sub-Int 4.1: Promotion of agriculture inputs, including high yielding seeds, fertilizers, and nutrients Sub-Int 4.2: Distribution and training on use of improved agricultural technologies (i.e. seeds that are drought tolerant and pest and disease resistant, mulching, cover cropping, small-scale mechanization, building green houses, measured use of organic and chemical fertilizers) Sub-Int 4.3: Demonstration plots for different type of fertilizers and nutrients	Higher temperatures and increased frequency of intense rainfall events and flooding could disrupt power sources, which has an indirect impact on the operation of processing machines/equipment for agricultural inputs. Increased temperatures and variability in rainfall, as well as increased intensity, duration and/or frequency of extreme climate-related events such as droughts and floods may increase the prevalence and/or distribution range of pests and disease. This could increase the use of pesticides and reduce food and nutritional security due to crop failures and food shortages. Increased precipitation and/or frequency of extreme climate-related	Moderate to High	Climate Smart Ag practices will help mitigate the effects of CC. (mulching, ground cover, etc.)	Ensure climate risks to agricultural input production and use are considered and managed as part of activity design. Ensure timely communication of climate risks between farmers and climate service providers. Build capacity for climate smart agriculture training. Provide farmers with accurate and timely weather/climate forecasting. Ensure that measures are taken to consider the health of workers and others involved in operation, maintenance, and distribution of agricultural inputs,	Integrate capacity building on the impacts of climate change to pest and disease prevalence and distribution. Build political will to integrate climate information into agricultural input production and distribution. Increase government-to-government coordination to improve seasonal weather forecasts. Measure effectiveness; govt takes accountability.

	events such as floods can wash away agriculture inputs (fertilizer and pesticides) from the field to the surface and groundwater. Increased temperatures and variability in rainfall, as well as increased intensity, duration and/or frequency of extreme climate-related events can increase prevalence of pathogenic, spoilage microorganisms, and enzymes affecting crop post-harvest storage, transport, and food processing.			including designated resting periods, shaded areas, and ample water supply. Requires a site-specific, design-specific assessment of potential adverse impacts and the efficacy of available mitigation measures.	Wetland management plan will balance the competing land use demands between local people by working with government agencies to effectively manage land, including protection for flood mitigation. To address uncertainties posed by climate risks during implementation, implementing partners and other key stakeholders should prepare to manage activities adaptively and communicate frequently.
Intervention Category 5: Provision of grants to CSOs, community-based organizations	Increased flooding and heat stress may lead to direct impacts on human health, or otherwise increase the prevalence of	Moderate	NA	Where appropriate, include specific	Include climate change information and disaster

and private business[17]; support for micro-franchise development Sub-int 5.1: Provide sub-grants activities to local CSOs and national CSOs Sub-int 5.2: Provision of small grants to community-based organizations and private businesses (e.g., micro-franchises).	water/food- and vector-borne disease, impacting health and nutritional expenditures among grant recipients (decreasing income available for household/livelihood expenses). Climate risk may not be taken into account by grantees in the design/implementation, which could lead to suboptimal performance/outcomes.			language[18] on climate risk screening and management in Scopes of Work, Sub-grantee agreements, Requests for Applications, and Requests for Interest. Design grant and financial support activities to be adaptable to changing climate conditions and to incorporate climate resilience across various conditions.	preparedness in financial mobilization, grants planning and implementation and capacity building activities. Provide timely weather information to grant recipients (especially farmers) using results of monitoring from early warning systems. Support the private sector by designing, testing, and applying new tools, technologies, and approaches (e.g. innovative grants mechanism,

17

18 Grants under Contracts will be implemented via appropriate climate-resilient guidance and tools (e.g. flood resistant materials, greenhouses, irrigation and climate smart practices)

					water pumps, drip irrigation system, access to market, post-harvesting technologies, ICT, IPM, and cost-sharing).
Intervention Category 6: Policy reform, review, and advocacy in agricultural marketing and trade, financial reforms/support mechanisms Sub-intervention 6.1: Support to development policies, standards of agribusiness standards Sub-intervention 6.2: Research development for policy reforms Sub-intervention 6.3: Facilitation of inclusive policy reforms drawing on evidence-based analysis and strengthened advocacy capacity within private sector organizations Sub-intervention 6.4: Support relevant policy reform efforts and Public-Private Dialogue Sub-intervention 6.5: Assist the GOR to develop and strengthen	Lack of holistic, coordinated, unified and bold policy reform efforts can affect the development and implementation of climate change policies and leadership required for collaborative efforts (e.g., local communities, donors, private sector, civil society organization, government institutions and research institutions). Climate change may render policy reforms, advocacy in agricultural marketing and trade, financial reforms/support mechanisms. less effective if climate risks are not accounted for in these processes. Increases in climate shocks and stressors, such as long-term temperature	Low	NA	Build capacity for climate-smart agriculture training/capacity building. Consider developing virtual trainings to reduce dependency on in-person capacity building events. Strengthen active surveillance to mitigate against climate-related disruptions. Ensure data is stored appropriately and backed up in various locations to mitigate any effects of large climate events that could disrupt data storage in particular locations. Support development of policies, standards of	To address uncertainties posed by climate risks during implementing, implementing partners and other key stakeholders should prepare to manage activities adaptively and communicate frequently. New opportunities exist to increase climate resilience and promote low emissions such as government initiative on car/moto recharging, policies promoting low GHGs,

financial de- risking and bond instruments Sub-intervention 6.6: Support of local actors (government and private sector) to attract, mobilize, and direct public and private financing resources. Interventions will address gaps identified in the areas of investment promotion and mobilization among the Government of Rwanda (GOR) agencies and within their investment programs (including the Export growth Fund, Horticulture development fund, the agricultural risk sharing facility, etc.).	increases and flooding events, may put a strain on government staff and resources. This could decrease funding and attention for policy and strategy development related to agricultural development and economic growth. Climate change risks such as increased temperatures, flooding, and drought could cause negative impacts on agricultural marketing and trade that may result in underperforming interventions or maladaptation if not incorporated into activities.			agribusiness standards and financial support activities to be adaptable to changing climate conditions and to incorporate climate resilience across various conditions.	biodiversity conservation, green growth strategy, The project can facilitate public-private partnership and support relevant policies and actors The government have increasingly recognized that adaptation is a key component of global response to climate change. The project can work with government ministry to screen pilot activities during their design for the need to integrate climate adaptation measures. The low capacity and lack of access to finances to

					address climate related challenges while simultaneously addressing existing challenges are further exacerbated by climate change (e.g., public health challenges). Building capacity of the government partners to integrate climate risks in the policy reform and agricultural and marketing interventions. Promote engagement of climate change researchers and policy makers to raise awareness and understanding of climate change impacts on

					management and policy decisions. Incorporate climate change considerations into investment other and developmental funds programs
Intervention 7: Small Scale Construction <u>Sub-intervention 7.1:</u> Small scale construction of cold storage facilities <u>Sub-intervention 7.2:</u> Small scale construction (total surface area disturbed is 1000 m2 or less) of small slaughtering facilities; small agro processing facilities, etc.	Construction workers may face increased risk due to impacts of climate-related extreme events (e.g., floods, or heavy rains). Increased temperatures, and variability in rainfall, as well as increased intensity, duration, and/or frequency of extreme climate-related events such as droughts or floods may disrupt provision of information on inclement weather, logistic networks to deploy staff and equipment, impede access routes, and damage sites targeted for construction and rehabilitation. Increased frequency and severity of flooding may damage or destroy cold	High	NA	Include climate risk management measures in activity EMMPs. Disseminate appropriate construction technology that would prevent pollution of groundwater (Solar irrigation pumps and drip irrigation, water catchment ponds to store water). Develop indicators to monitor inclusion of CRM considerations and measures into activity implementation. Where appropriate, include specific language on climate risk screening and management in Scopes	Improved, climate-informed construction and facilities design approaches can serve as a model for other sectors Efforts to improve response and planning for climate-related extreme events can translate to broader emergency preparedness and planning.

	storage, slaughtering and small agro processing facilities. Increased flooding may lead to direct impacts on human health, or otherwise increase the prevalence of water/food- and vector-borne disease, impacting the health of construction crews and permanent staff requiring changes in timing or length of construction or rehabilitation activities.			of Work, Sub-grantee agreements, Requests for Applications, and Requests for Interest. Design construction activities and schedules to be adaptable to changing climate conditions and to incorporate climate resilience across various conditions. Ensure that measures are taken to consider the health of workers and others involved in construction, including designated resting periods, shelter from storms, rain/flood, shaded areas, and ample water supply.	
Intervention Category 8: Small Scale Irrigation <u>Sub-intervention 8.1:</u> Distribution and training on use of improved water management technologies (i.e. Solar irrigation pumps and drip irrigation, water catchment ponds to store water)	Increased temperatures, flooding frequency and intensity, and drought can all result in reduced water quality. Reduced water quality and/or availability can lead to increased competition over water resources (e.g., for irrigation), increasing risk of conflict and reducing.	Moderate	Environmentally friendly technology such as solar irrigation systems may be promoted.	Use local knowledge and best practices to integrate design measures to address specific potential climate stressors (e.g., use more resilient materials or construction methods, design for future upgrades/repairs, or	Improved, climate-informed construction and irrigation design approaches can serve as a model for other sectors Include climate change related concerns in the

Sub-intervention 8.2: Construction of small-scale irrigation systems	potable water availability.[19] Additionally, marginalized, and vulnerable populations may experience exacerbated inequalities from climate-related impacts to water resources availability and access. Increased frequency and intensity of flooding, drought, and changing precipitation patterns may result in poorly designed (poorly performing) irrigation canals if climate change risks are not accounted for in rehabilitation and construction. Increased flooding may lead to direct impacts on human health, or otherwise increase the prevalence of water/food- and vector-borne disease, impacting the health of construction crews and permanent staff requiring changes in timing			elevate to accommodate rising temperature and flood risks. Consider climate risks when choosing project locations and carrying out design and construction. Design construction activities and schedules to be adaptable to changing climate conditions and to incorporate climate resilience across various conditions. Ensure that measures are taken to consider the health of workers and others involved in construction, including designated resting periods, shaded areas, and ample water supply. In citing decisions for solar energy	design, construction, and protection of irrigation infrastructure Agrivoltaic systems (wherein solar and agricultural systems are co-located for mutual benefit) can increase overall resilience by reducing land demand for energy production. Elevating panels to increase wind-aided cooling of panels, and create shade for workers and battery/electronic system housing, can build resilience against higher temperatures

[19] Irrigation system selection criteria will include areas that are close to wetland or have access to water and securing permits from Rwanda Environmental Management Authority. USAID is lacking funds for environmental-focused-activities e.g., upper watershed restoration or wetland restoration.

	or length of construction or rehabilitation activities. Climate change could result in changes in cloud cover, atmospheric water vapor, rainfall, turbidity, and solar irradiance, altering the available solar resource in selected areas and affecting solar performance/output. Higher temperatures may decrease the efficiency of solar power cells. Climate changes pose potential threats to energy security and increase the long-term financial risk to power system investments.			technologies, prioritize locations that are more resilient to extreme climate events, particularly floods. Consider locations with multiple access routes, particularly if at least one alternative is protected against relevant climate risks. Encourage use of the most resilient technology and the most flexible/robust designs that are designed to withstand changing weather patterns. Identify opportunities to strengthen critical infrastructure and equipment procurement planning that can reduce risk to investments.	The need to invest in more climate-resilient energy technology could create opportunities to engage the private sector and support livelihood diversification of youth and women in renewable energy technologies The need to invest in more climate-resilient low emission energy technology could create opportunities to engage the private sector and support livelihood diversification of youth and women in renewable energy technologies.

ANNEX 2: ENVIRONMENTAL REVIEW FORM

Note to USAID Staff, Consultants & Partners Regarding the: Africa Bureau ENVIRONMENTAL REVIEW FORM & INSTRUCTIONS

Appropriate use

1. The Environmental Review Form (ERF) can only be used when and as specifically authorized by the IEE or EA governing the project or program in question. For IEEs, this authorization is made in the form of a negative determination with conditions. *Authorized use of the ERF is limited to the specific class of activities enumerated in the determination.*

2. The BEO will not clear an IEE or EA that authorizes use of the ERF unless ALL of the following are true:

a. **the general nature or potential scope of the activities for which the ERF will be used are known** at the time the IEE is written (e.g. small infrastructure rehabilitation, training and outreach for a specified purpose, etc.).

b. **These activities will be executed under a grant or subproject component of a parent project/program.** The ERF cannot be used in lieu of a request for categorical exclusion, IEE or IEE amendment when new activities/components are to be added to existing projects, programs or sector portfolios.

c. Of their general nature, **foreseeable adverse environmental impacts are small or easily controllable with BASIC MITIGATION TECHNIQUES that can BE SUCCESSFULLY IMPLEMEMENTED BY FIELD STAFF.**

d. of their general nature, the **activities are NOT large-scale.**

There is no formal AFR standard for "small-scale activities." Over time, AFR has developed some "rules of thumb" for activities that are BOTH small-scale AND pose very low risks of significant adverse impacts. These are used in the ERF itself: e.g. construction involving less than 10,000 sq. ft. total disturbed area and less than $200,000 total cost; road rehabilitation of less than 10km total length without change to alignment or right-of-way. Activities moderately larger than these "rules of thumb" are also small-scale, but are treated by the ERF as being of moderate/unknown risk, thus requiring an environmental review report.

What does "moderately larger" mean? What about activities for which there is no "rule of thumb" built into the ERF? Absolute physical scale and funding level, physical scale relative to the surrounding built environment, population affected, and number of locations affected are among the factors relevant to determining whether a class of activities is "small scale." The IEE must provide enough information for the BEO to assess whether the activities proposed for subproject review will be indeed be small scale within their implementation context.

Adaptation of the form

1. Text in **UNDERLINE & BLUE HIGHLIGHT** **MUST** be customized to the particular project/mission.
2. Yellow highlighted text must be reviewed and then modified, deleted or retained, as appropriate.
3. Both the form AND instructions should be generally reviewed and modified to reflect the specific project/program and implementation context.
4. The adapted form and instructions must be appended to the Initial Environmental Examination for the overall project.
5. For NRM-oriented programs (especially those involving CBNRM, ecotourism, enterprises exploiting non-timber forest products, etc.) consider adaptation and use of the Supplemental Environmental Review Form for NRM sector activities.

Questions and Guidance

General guidance on subproject review is available on the MEO Resource Center at www.encapafrica.org/meoEntry.htm. For specific questions, contact the Mission Environmental Officer or Regional Environmental Advisor. Good-practice examples of completed forms, environmental review reports and environmental management plans are available from USAID/AFR's ENCAP project: encapinfo@cadmusgroup.com; www.encapafrica.org.

Revision history:

Major update on 24 June 2010 to clarify appropriate use, revise Environmental Review Report structure, and update clearance requirements. Formatting and presentation revised 17 Jan 2005. Revised April 13, 2004, to include biosafety considerations and better reflect the Supplemental Environmental Review Form for NRM sector activities.

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Instructions for environmental review of XXX Program Subprojects/Sub-grants

Note: *These instructions accompany the attached "Environmental Review Form for USAID/XXX Program/Project Activities" (ERF).* ***Follow, but DO NOT SUBMIT, these instructions.***

Who must submit the Environmental Review Form (ERF)?

ALL Implementing Partners seeking to implement [describe qualifying activities] under the XXX Program/Project must complete, sign and submit the ERF to [insert name & email of C/AOTR].

Authority: Use of the ERF for these activities is mandated by the governing Initial Environmental Examination (IEE) for the XXX Project/Program. The IEE can be downloaded at: *[insert URL]*.

No implementation without an approved ERF

The proposed activities cannot be implemented and no "irreversible commitment of resources" for these activities can be made until the ERF (including Environmental Review Report, if required, see Step 4, below) is cleared by the C/AOTR, the Mission Environmental Officer (MEO) and the Regional Environmental Advisor (REA).

NOTE: USAID may deny clearance to the ERF, or may require modification and re-submission for clearance.

Environmental management requirements resulting from the ERF

If the ERF requires preparation of an Environmental Review Report (see Step 4, below), any environmental management measures specified in the approved Environmental Review Report MUST be implemented.

Situations in which additional environmental review is required.

If the ERF finds that one of more of the proposed activities has the potential to cause significant adverse environmental impacts, the activities must be redesigned or an IEE or full Environmental Assessment must be conducted and approved prior to implementation.

If USAID determines that the proposed activities are outside the scope of activities for which use of this form is authorized, the activities must be redesigned or an IEE or IEE Amendment will be required.

In either situation, USAID will confer with the partner to determine next steps. Note: If an IEE or EA is required, all environmental management measures specified in the IEE or EA must then be implemented.

Step 1. Provide requested "Applicant information" (Section A of the ERF)

Step 2. List all proposed activities

In Section B of the form, list all proposed activities.

Activities are a desired accomplishment or output: e.g. seedling production, road rehabilitation, school construction. Each activity has entailed *actions*—for example, road rehabilitation includes survey, grading, culvert construction, compaction, etc. *Be aware of these entailed actions, but do NOT list them.*

List activities DESCRIPTIVELY. For example, "training" is not a sufficient activity listing. The listing must specify WHO is being trained, and in WHAT.

Step 3a. Screening: Identify low-risk and high-risk activities

For *each* activity you have listed in Section B of the form, refer to the list below to determine whether it is a listed low-risk or high-risk activity.

If an activity is specifically identified as "very low risk" or "high risk" in the list below, indicate this in the "screening result" column in Section B of the form.

Very low-risk activities (Activities with low potential for adverse biophysical or health impacts; including §216.2(c)(2))	**High-risk activities** (Activities with high potential for adverse biophysical or health impacts; including §216.2(d)(1))
Provision of education, technical assistance, or training. (Note that activities directly affecting the environment. do not qualify.) **Community awareness** initiatives. **Controlled agricultural experimentation** exclusively for the purpose of research and field evaluation confined to small areas (normally under 4 ha./10 acres). This must be carefully monitored and no protected or other sensitive environmental areas may be affected). **Technical studies and analyses** and other information generation activities not involving intrusive sampling of endangered species or critical habitats. **Document or information transfers**. **Nutrition, health care or family planning**, EXCEPT when (a) some included activities could directly affect the environment (construction, water supply systems, etc.) or (b) biohazardous (esp. HIV/AIDS) waste is handled or blood is tested. **Small-scale construction.** Construction or repair of facilities if total surface area to be disturbed is less than 10,000 sq. ft. (approx. 1,000 sq. m.) (and when no protected or other sensitive environmental areas could be affected). **Intermediate credit.** Support for intermediate credit arrangements (when no significant biophysical environmental impact can reasonably be expected). **Maternal and child feeding** conducted under Title II of Public Law 480. **Title II Activities.** Food for development programs under Title III of P.L. 480, when no on-the-ground biophysical interventions are likely. **Capacity for development.** Studies or programs intended to develop the capability of recipients to engage in development planning. (Does NOT include activities directly affecting the environment) **Small-scale Natural Resource Management activities** for which the answer to ALL SUPPLEMENTAL	**River basin development** **New lands development** **Planned resettlement** of human populations. **Penetration road building, or rehabilitation** of roads (primary, secondary, some tertiary) over 10 km length, and any roads which may pass through or near relatively undegraded forest lands or other sensitive ecological areas **Substantial piped water supply and sewerage** construction. **Major bore hole or water point construction.** **Large-scale irrigation; Water management structures** such as dams and impoundments **Drainage of wetlands** or other permanently flooded areas. **Large-scale agricultural mechanization.** **Agricultural land leveling.** **Procurement or use of <u>restricted use</u> pesticides**, or wide-area application in non-emergency conditions under non-supervised conditions. (Consult MEO.) **Light industrial plant production or processing** (e.g., sawmill operation, agro-industrial processing of forestry products, tanneries, cloth-dying operations). **<u>High-risk and typically not funded by USAID</u>:** **Actions affecting protected areas and species.** Actions determined likely to significantly degrade protected areas, such as introduction of exotic plants or animals. Actions determined likely to jeopardize threatened & endangered species or adversely modify their habitat (esp. wetlands, tropical forests) **Activities in forests, including:** ▪ **Conversion of forest lands** to rearing of livestock ▪ **Planned colonization of forest** lands ▪ **Procurement or use of timber harvesting equipment**

SCREENING QUESTIONS (see *Natural Resources supplement*) is "NO."	▪ **Commercial extraction of timber** ▪ **Construction of dams** or other water control structures that flood relatively undegraded forest lands ▪ **Construction, upgrading or maintenance of roads** that pass through relatively non-degraded forest lands. (Includes temporary haul roads for logging or other extractive industries)

(This list of activities is taken from the text of 22 CFR 216 and other applicable laws, regulations and directives)

Step 3b: Identifying activities of unknown or moderate risk.

All activities NOT identified as "very low risk" or "very high risk" are considered to be of "unknown or moderate risk." Common examples of moderate-risk activities are given in the table below.

Check "moderate or unknown risk" under screening results in Section B of the form for ALL such activities.

Common examples of moderate-risk activities

CAUTION:
If ANY of the activities listed in this table may adversely impact (1) protected areas, (2) other sensitive environmental areas, or (3) threatened and endangered species and their habitat, THEY ARE NOT MODERATE RISK. All such activities are HIGH RISK ACTIVITIES.

Small-scale agriculture, NRM, sanitation, etc. (You may wish to define what "small scale" means for each activity)

Agricultural experimentation. Controlled and carefully monitored agricultural experimentation exclusively for the purpose of research and field evaluation of MORE than 4 ha.

NOTE Biotechnology/GMOs: No *biotechnology testing or release* of any kind are to take place within an assisted country until the host countries involved have drafted and *approved* a regulatory framework governing biotechnology and biosafety.

All USAID-funded interventions which involve biotechnologies are to be informed by the ADS 211 series governing "Biosafety Procedures for Genetic Engineering Research". In particular this guidance details the required written approval procedures needed before transferring or releasing GE products to the field.

Medium-scale construction. Construction or rehabilitation of facilities or structures in which the surface area to be disturbed exceeds 10,000 sq. ft. (1000 sq. meters) but funding level is $200,000 or less. (E.g. small warehouses, farm packing sheds, agricultural trading posts, produce market centers, and community training centers.)

Rural roads. Construction or rehabilitation of rural roads meeting the following criteria:
- Length of road work is less than ~10 km
- No change in alignment or right of way

Sampling. Technical studies and analyses or similar activities that could involve intrusive sampling, of endangered species or critical habitats. (Includes aerial sampling.)

Water provision/storage. Construction or rehabilitation of small-scale water points or water storage devices for domestic or non-domestic use. Water points must be located where no protected or other sensitive environmental areas could be affected.

NOTE: USAID guidance on water quality requires testing for arsenic, nitrates, nitrites and coliform bacteria.

Support for intermediate credit institutions when indirect environmental harm conceivably could result.

Institutional support grants to NGOs/PVOs when the activities of the organizations are known and may reasonably have adverse environmental impact.

Pesticides. . Small-scale use of USEPA-registered, least-toxic general-use pesticides. Use must be limited to NGO-supervised use by farmers, demonstration, training and education, or emergency assistance.

NOTE: Environmental review (see step 5) must be carried out consistent with USAID Pesticide Procedures as required in Reg. 16 [22 CFR 216.3(b)(1)].

▪ Ecologically sensitive areas are at least 100 m away from the road and not affected by construction or changes in drainage. ▪ No protected areas or relatively undegraded forest are within 5 km of the road. **Title II & III Small-Scale Infrastructure.** Food for Development programs under Title II or III, involving small-scale infrastructure with the known potential to cause environmental harm (e.g., roads, bore holes). **Quantity imports of commodities such as fertilizers**	**Nutrition, health care or family planning**, if (a) some included activities could directly affect the environment (e.g., construction, supply systems, etc.) or (b) biohazardous health care waste (esp. HIV/AIDS) is produced, syringes are used, or blood is tested.

Step 4. Determine if you must write an Environmental Review Report

Examine the "screening results" as you have entered them in Table 1 of the form.

- If ALL the activities are "very low risk," then no further review is necessary. In Section C of the form, check the box labeled "very low risk activities." Skip to Step 8 of these instructions.
- If ANY activities are "unknown or moderate risk," you MUST complete an ENVIRONMENTAL REVIEW REPORT addressing these activities. Proceed to Step 5.
- If ANY activities are "high risk," note that USAID's regulations usually require a full environmental assessment study (EA). Because these activities are assumed to have a high probability of causing significant, adverse environmental impacts, they are closely scrutinized. *Any* proposed high-risk activity should be discussed in advance with USAID. Activity re-design is often indicated.

In some cases, it is possible that reasonable, achievable mitigation and monitoring can reduce or eliminate likely impacts so that a full EA will not be required. If the applicant believes this to be the case, the Environmental Review Report must argue this case clearly and thoroughly. Proceed to Step 5.

Step 5. Write the Environmental Review Report, if required

The Environmental Review Report presents the environmental issues associated with the proposed activities. It also documents mitigation and monitoring commitments. Its purpose is to allow the applicant and USAID to evaluate the likely environmental impacts of the project.

For a single, moderate risk activity, the Environmental Review Report is typically a SHORT 4–5 page document. The Report will typically be longer for (1) multiple activities; (2) activities of high or unknown risk; and/or (3) when a number of impacts and mitigation measures are being identified and discussed.

The Environmental Review Report follows the outline below. Alternate outlines are acceptable, so long as all required information is covered.

A**.** **Summary of Proposal.** Very briefly summarize background, rationale and outputs/results expected. (Reference proposal, if appropriate).

B. **Description of Activities.** For all moderate and high-risk activities listed in Section B of the ERF, succinctly describe location, siting, surroundings (include a map, even a sketch map). Provide both quantitative and qualitative information about actions needed during all project phases and who will undertake them. (All of this information can be provided in a table). If various alternatives have been considered and rejected because the proposed activity is considered more environmentally sound, explain these.

C. **Site-specific Environmental Situation & Host Country Requirements.** Describe the environmental characteristics of the site(s) where the proposed activities will take place. Focus on site characteristics of concern—e.g.,

water supplies, animal habitat, steep slopes, etc. With regard to these critical characteristics, is the environmental situation at the site degrading, improving, or stable?

Also note applicable host country environmental regulations and/or policies. (For example, does the project require host country environmental review or permitting? Building approval? Etc.)

NOTE: provide site-specific information in this section, NOT country-level information. General information about country level conditions should already be contained in the IEE governing the XXX project/program.

D. **Environmental Issues, Mitigation Actions, and Findings.** For ALL proposed activities:

i. Briefly note the potential environmental impacts or concerns presented by the proposed activities (if any). *For guidance, refer to Africa Bureau's Environmental Guidelines for Small-Scale Activities; available at www.encapafrica.org/egssaa.htm.*

As per the *Small-Scale Guidelines*, consider direct, indirect and cumulative impacts across the activity lifecycle (i.e. impacts of site selection, construction, and operation, as well as any problems that might arise with abandoning, restoring or reusing the site at the end of the anticipated life of the facility or activity). Note that "environment" includes air, water, geology, soils, vegetation, wildlife, aquatic resources, historic, archaeological or other cultural resources, people and their communities, land use, traffic, waste disposal, water supply, energy, etc.)

ii. Assess the extent to which these *potential* impacts and concerns are significant in the context of the specific activity design and site.

iii. Set out the mitigation actions to be employed to address these issues.

Mitigation actions are means taken to avoid, reduce or compensate for impacts. Mitigation measures must be reasonable and implementable by field staff. They should be consistent with the good practice guidance provided in Africa Bureau's Environmental Guidelines for Small-Scale Activities; (www.encapafrica.org/egssaa.htm.) Cite this or other guidance used for mitigation design.

iv. Reach one of three findings regarding the potential impacts:

a. Significant adverse impacts are very unlikely. Of its nature, the activity in question is very unlikely to result in significant, adverse environmental impacts. Special mitigation or monitoring is not required.
Note: this conclusion is rarely appropriate for high-risk activities.

b. With implementation of the specified mitigation and monitoring, significant adverse impacts are very unlikely.

c. Significant adverse impacts are possible. That is, it is not possible to rule out significant adverse environmental impacts even given reasonable, attainable mitigation and monitoring.

In this case, USAID and the partner will consult regarding next steps. If the activity is to go forward in its current form, additional analysis in the form of an IEE or EA will be required.

Format and structure of this section. Choose a format and structure that presents the necessary information clearly and succinctly.

Table formats can be used. In the example below, the proposed activity was construction of an institutional facility on a 7500m3 plot bisected by a seasonal stream providing drainage to the local area. One potential impact of the activity was reduction of or alteration to the drainage eco-service provided by the seasonal stream.

Issue or cause for concern	Analysis	Finding and conditions/mitigation actions
The seasonal stream running through the plot	As indicated at left, this impact only arises if the drainage "service "	Per analysis at left, this potential impact is not significant, so long as the following mitigations are implemented:

drains an area of at least 2 km^2 to the WNW. Diminution or alteration to this drainage "service" could result in increased upstream pooling & flooding during the rainy season, with associated property damage and increased breeding habitat for disease vectors.	provided by the seasonal stream is diminished or altered in some adverse manner. So long as compound design maintains the existing service level and construction is managed without disruption to stream flow, actual adverse impact will be negligible or zero.	1. Total stream capacity cannot be diminished by the development of the compound. (Stream channel on average is 3m x 1m.) 2. The stream must remain substantially in the same channel and cannot, e.g., be re-routed around the property. 3. If construction will result in an interruption to stream flow, provision must be made to provide a temporary bypass. Temporary damming of stream flow is not permissible. 4. Post-construction, the stream bed within the property, including point-of-entry (e.g. via culvert under perimeter wall) must be maintained free of obstructions to flow.

E. **Environmental Mitigation and Monitoring Plan (EMMP). S**et out how compliance with mitigation actions will be monitored/verified. This includes specifying WHO will be responsible for the various mitigation actions, and HOW implementation of the mitigation actions will be tracked/verified.

Also specify how you will report to USAID on the implementation of mitigation actions. (You are REQUIRED to provide your C/AOTR with sufficient information on the status of mitigation implementation for USAID to effectively fulfill its oversight and performance monitoring role.)

Again, choose a format and structure that presents the necessary information clearly and succinctly. EMMPs are typically in table format, and often include a compliance log or "monitoring record" section that records implementation status of the various mitigation actions. The EMMP with current monitoring log can then simply be submitted to the C/AOTR with the quarterly or 6-month project report, satisfying the environmental compliance reporting requirement. .

The most basic EMMP format is

Mitigation action	Responsible Party	Monitoring/Verification Method	Monitoring Record (date, result, corrective actions taken, if any)

For additional EMMP formats and examples, see the ENCAP EMMP factsheet, available via www.encapafrica.org/meoEntry.htm

F. **Other Information**. Where possible and as appropriate, include photos of the site and surroundings; maps; and list the names of any reference materials or individuals consulted.

(Pictures and maps of the site can substantially reduce the written description required in parts B & C)

Step 6. Transcribe findings from the Environmental Review Report to the ERF

For each high-risk or unknown/moderate-risk activity, transcribe your finding from the environmental review report to the last column of Section B of the ERF.

Step 7. Sign certifications (Section C of former.)

Step 8. Submit form to USAID C/AOTR. Be sure to attach the Environmental Review Report, if any.

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Environmental Review Form for XXX Program subprojects/subgrants

Follow, but do not submit, the attached instructions.

A. Applicant information

Organization	Parent grant or project
Individual contact and title	Address, phone & email (if available)
Proposed subproject /subgrant (brief description)	Amount of funding requested
	Period of performance
	Location(s) of proposed activities

B. Activities, screening results, and findings

Proposed activities (Provide DESCRIPTIVE listing. Continue on additional page if necessary)	**Screening result** (Step 3 of instructions)			**Findings** (Step 6 of instructions. Complete for all moderate/unknown and high-risk activities ONLY)		
	Very Low Risk	High-Risk*	Moderate or unknown risk*	significant adverse impacts are very unlikely	With specified mitigation, significant adverse impacts are very unlikely	Significant Adverse impacts are possible
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						

*These screening results require completion of an Environmental Review Report

C. Certification:

I, the undersigned, certify that:

1. The information on this form and accompanying environmental review report (if any) is correct and complete.
2. Implementation of these activities will not go forward until specific approval is received from the C/AOTR.
3. All mitigation and monitoring measures specified in the Environmental Review Report will be implemented in their entirety, and that staff charged with this implementation will have the authority, capacity and knowledge for successful implementation.

(Signature) _____ (Date) _____

(Print name) _____ (Title) _____

Note: if screening results for *any activity* are "high risk" or "moderate or unknown risk," this form is not complete unless accompanied by an environmental review report.

BELOW THIS LINE FOR USAID USE ONLY

Notes:

1. For clearance to be granted, the activity MUST be within the scope of the activities for which use of the ERF is authorized in the governing IEE. **Review IEE before signature.** If activities are outside this scope, deny clearance and provide explanation in comments section. The Partner, C/AOTR, MEO and REA must then confer regarding next steps: activity re-design, an IEE or EA.

2. Clearing an ERF containing one or more findings that **significant adverse impacts are possible** indicates agreement with the analysis and findings. It does NOT authorize activities for which "significant adverse impacts are possible" to go forward. It DOES authorize other activities to go forward. The Partner, C/AOTR, MEO and REA must then confer regarding next steps: activity re-design, an IEE or EA.

Clearance record

C/AOTR ☐ Clearance given ☐ Clearance denied	(print name)	(signature)	(date)
USAID/XXXX MEO ☐ Clearance given ☐ Clearance denied	(print name)	(signature)	(date)
Regional Env. Advisor (REA) ☐ Clearance given ☐ Clearance denied	(print name)	(signature)	(date)
Bureau Env. Officer (BEO)* ☐ Clearance given ☐ Clearance denied	(print name)	(signature)	(date)

C/AOTR, MEO and REA clearance is required. BEO clearance is required for all "high risk" screening results and for findings of "significant adverse impacts possible. The BEO may review"

Note: if clearance is denied, comments must be provided to applicant
(use space below & attach sheets if necessary)

ANNEX 3: MECHANISMS COVERED UNDER THE PROSPER PROGRAM

Mechanism/Activity	LOP	Description (from Project Documents, e.g., PDD or IEEs)
Activity 1: Hinga Weze (FtF SFAN)	6/17 – 6/22	The principal goal of the new "Integrated Agriculture and Nutrition" activity is to strengthen farmers' livelihood and sustainably increase their income, and improve nutritional status especially for Rwandan women and children by increasing resilience of the agriculture system to the changing climate. Hinga Weze, which translates to "Cultivate for a Better Harvest" aims to sustainably increase farmers' incomes; improve the nutritional status of women and children; and increase the resilience of the agriculture and food systems in the face of a changing climate. Hinga Weze primarily contributes to all sub-IRs under PROSPER IR 2: Agriculture Modernized as a Driver of Growth, by working with farmers and cooperatives in FTF target value chains and geographies to adopt modern, improved technologies and management practices in order to produce increased high-quality and diverse outputs. Hinga Weze also contributes to policy dialogue and development for related sectors as needed, thereby contributing to sub-IR 1.1: Enterprise-Driven Policies Adopted and Implemented. Hinga Weze's emphasis on integrating nutrition into agriculture and providing complementary nutrition promotional activities for women and children under five also supports the CDCS cross-cutting nutrition objective, and farm/firm income increases contribute to the CDCS cross-cutting financing self-reliance objective
Activity 2: Huguka Dukore Akazi Kanoze	12/16 – 12/21	Huguka Dukore Akazi Kanoze, which translates to "Get Trained and Let's do fine Work," aims to increase stable employment opportunities, including self-employment, for 40,000 male and female vulnerable youth, and improve youth training and employment systems, and increase investment in skills for vulnerable youth in Rwanda. Through coaching in key technical, core, and digital skills, as well as various linkages to finance and income, HDAK contributes to all sub-IRs under IR 3: Increased Employment and Entrepreneurship for Women and Youth.
Activity 3: Nguriza Nshore (FtF FARMTIME)	04/18 – 04/23	The main goal of the new "Farm to Market, Inclusion, Technology Microfinance and Engagement" activity is to strengthen the cooperative ecosystem to deliver services, advocacy, and communication capacity building to foster greater access to markets, financial inclusion, pricing transparency, improved incomes for rural farmers, great information sharing and cooperation between cooperatives, and improved nutrition/health for cooperative members. Nguriza Nshore, which translates to "Lend so that I May Invest" aims to drive the growth of SMEs in Rwanda and create non-farm jobs for rural Rwandans. To foster growth in SMEs across Rwanda; to do so, they work with three complimentary players in the market ecosystem: financial institutions, SMEs, and the Government of Rwanda. Nguriza Nshore's technical focus contributes to PROSPER sub-IR 1.2: Financial Markets Strengthened and sub-IR 3.1: Access to Finance Increased. However, it also contributes to

		policy dialogue and development for the sector, thereby contributing to sub-IR 1.1: Enterprise-Driven Policies Adopted and Implemented. Lastly, the scale and success of the private sector is crucial for a stable Rwandan tax base and, in this way, Nguriza Nshore also contributes to the CDCS cross-cutting objective of financing self-reliance.
Activity 4: Orora Wihaze	10/19 – 10/24	Orora Wihaze, which translates to "Raise Animals for Self-Sufficiency" aims to sustainably increase the availability of, access to, and consumption of animal-sourced foods (ASF) through the development of profitable markets. Orora Wihaze primarily contributes to IR 2: Agriculture modernized as a driver of growth. ASF are both high-value and nutritious and in this way, Orora Wihaze contributes to PROSPER sub-IR 2.1; the OW seeks to utilize new production technologies and approaches to increase yields, contributing to sub-IR 2.2; and to better connect producers to markets, contributing to sub-IR 2.3. Orora Wihaze also contributes to policy dialogue and development for the ASF sector, thereby contributing to sub-IR 1.1: Enterprise-Driven Policies Adopted and Implemented. Additionally, the emphasis on ASF consumption improvements, particularly for women and children contributes to the CDCS cross-cutting nutrition objective while the farm/firm income increasing interventions contribute to the CDCS cross-cutting objective of financing self-reliance.
Activity 5: Ongera Ubucuruzi (formerly Trade Infrastructure Project 2)	1/17 – 1/21	Ongera Ubucuruzi, which translates to "Increase Trade," has an overarching objective of reducing barriers to trade and improve business competitiveness by addressing constraints leading to high trade costs and time delays which includes standards certification, persistent technical and non-tariff barriers to trade, regulation, and a lack of access to market information. Ongera Ubucuruzi's interventions primarily work to support work across all sub-IRs under PROSPER IR 1: Enabling Environment for Private Sector Strengthened. As OU increases trade earnings and foreign exchange, it also supports the CDCS cross-cutting objective of Financing Self-Reliance. Addressing trade related costs is critical to unlocking Rwanda's economic potential. This activity seeks to address market failures that continue increase the cost of trade in Rwanda and the region through two intervention pillars – reducing barriers to trade and improved business competitiveness for trade. Specifically, it will address constraints affecting trade costs for goods, related to access to standards certification, persistent non-tariff barriers (NTBs) to trade, inefficient trade process and systems and limited capacity to support the export sector. By reducing trade barriers and improving trade competitiveness, this activity will focus on establishing an environment conducive to the emergence of firms that are competitive in export and domestic markets, which is necessary for the S-TIME Project purpose to be fulfilled.
Activity 6: Tera Imbuto Nziza	9/18 – 9/22	Tera Imbuta Nziza, which translates to "Plant Good Seeds" has the objectives of: increasing the production and utilization of improved seeds; enhancing the operational capacity of the domestic seed market system; and supporting and operationalizing policies that regulate the seed sector. Through the introduction and production of improved seed varieties, Tera Imbuto Nziza contributes to PROSPER sub-IR 2.2: Adoption of productivity-enhancing and climate-smart technologies and services, and through the TIN's

		work to strengthen the private sector and improve regulatory environment related to the seed sector, it supports sub-IR 1.1: Enabling Environment for Private Sector Strengthened and sub-IR 1.3: Capacity of evidence-based dialogue on market systems reforms.
Activity 7: FtF Facilitate Investment Required For Sustainable Export (FIRST)	12/20 – 10/25	The goal of the Feed the Future FIRST Activity is to enhance economic growth of Rwandan enterprises by addressing constraints within agriculture market systems, especially as it pertains to commodities and services for export. By helping to facilitate an enabling environment and build capacity of public agencies for increased foreign and domestic investments in the agribusiness sector, the Feed the Future FIRST will ensure increased income and job opportunities and improved food security among rural populations, especially youth
Activity 8: New Trade Activity	1/22 - 1/27	The New Trade Activity will build on Ongera Ubucuruzi (Mechanism 5) The new trade activity will contribute to reducing time and cost of trading regionally and internationally by addressing barriers to trade and building capacity of local actors systems to implement the World Trade Organization trade facilitation agreement. By doing so, the trade activity will support Rwanda microenterprises improve market access, including high value agricultural products. The new trade activity will also focus on addressing those trade barriers that are faced by women-owned SMEs. Illustrative activities include training on simplifying trade procedures and streamlining systems for integrating all export processes under a single window; training exporters on sanitary and phyto-sanitary processes, and strengthening systems for identifying, resolving and monitoring non-tariff barriers.
Activity 9: Policy and Enabling Environment Activity (unnamed)	2022 – 2027	The unnamed Policy & Enabling Environment Activity is a $4 million activity that would conduct data analysis on existing and future policies around the effects of subsidies on agricultural inputs, selection of value chains, and nutritional outcomes. The analysis from this activity would be used to inform public policy and decision making by the Government of Rwanda as well as by USAID in determining future priorities for improving agricultural productivity, value chain selection and determining nutritional outcomes based on intervention scenarios.
Activity 9: Rwanda Rural Feeder Roads Improvement Program (RFRIP)[20]	04/15 – 11/26	The Rural Feeder Roads program aims to enhance market access and reduce transport costs for farm inputs through the rehabilitation, upgrading, and maintenance of 720km of feeder roads in 10 districts in Rwanda. Feeder roads help farmers to efficiently deliver goods to market, and thus this Activity supports PROSPER sub-IR 2.3: Expanded Access and Responsiveness to Markets and IR 3.2 Improved Market Linkages between Private Sector and Women/Youth. Roads rehabilitation activities initiated through a PIO grant to the World Bank.

[20] Note: As this activity will be procured through a PIO grant to the World Bank, it will have also to adhere to the recommendations of the World Bank's Environmental and Social Impact assessment for the program.

		Roads improvement activities under the FTF PAD are covered by the World Bank ‘s Environmental and Social Impact assessment of the World Bank's Feeder Roads Development Project in Rwanda. The Project conducted the Environmental and Social Impact Assessment (ESIA) and used the findings for the development of the Environmental and Social Management Plans (ESMPs) to be implemented at Project and Contractors levels to mitigate environment-related issues that might be caused by the Project implementation. Those plans are being implemented by environment specialists hired by the Project and Contractors and monitored by USAID AOR and World Bank Senior Environment Specialist.
Activity 10: Employment and Economic Empowerment of Youth with Disabilities (EYD)	09/20 – 08/22	EYD will enable the target disabled persons organizations, direct participants, and public and private institutions to better understand the challenges faced by youth with disabilities in Rwanda and therefore increase collaboration and commitment to investing in workforce development and economic empowerment of youth with disabilities. The planned interventions will also promote enabling environment in Rwanda so that legal, regulatory, and cultural barriers that constrain persons with disabilities, particularly youth, from being able to fully and freely participate in the economy will be removed and/or mitigated to avoid experienced and perceived stigma and discrimination.
Activity 11: COVID Economic Recovery Fund Government to Government (G2G)	08/20 – 08/22	The COVID Economic Recovery Fund Activity will utilize a government-to-government project assistance agreement in order to provide funding to the Government of Rwanda’s Ministry of Finance and Economic Planning (MINECOFIN) to support the Rwanda’s Economic Recovery Fund (ERF), a two-year facility established by the Government of Rwanda. The objective of the ERF is to provide capital for businesses impacted by the crisis so they can stay open, restart production, and safeguard employment. By improving the GOR capacity to implement such a mechanism, this activity contributes to IR 1.2: Financial Markets Strengthened, and by unlocking capital for businesses it contributes to sub-IR 3.1 Access to Finance Increased.
Activity 12: Employment and Entrepreneurship (E&E)	08/21 – 08/26	The E&E Activity will provide technical assistance and support to agri-businesses to improve market systems and ability of the economy to generate entrepreneurship and employment opportunities focused on youth, women, and persons with disabilities across rural, peri-urban, and urban geographies. At the same time, E&E will build the technical (including digital literacy) and soft/life- skills of these groups to qualify for and obtain those employment opportunities and, in recognition of the limited role of formal employment within the current economy, to create their own successful self-employment opportunities
Activity 13: Modernizing Agriculture	06/22 – 06/27	The objective of the TBD Modernizing Agriculture Activity will be to increase smallholder farmers productivity and income while increasing the resilience of the agriculture and food systems to the changing climate. These objectives will be attained through the sustainable intensification and diversification (including high-value and highly-nutritious crops) of farming systems in Rwanda, with a specific emphasis on climate smart agriculture and other natural

		resource management approaches. The Activity will contribute to all sub-IRs under PROSPER IR 2: Agriculture Modernized as a Driver of Growth, by working with farmers and cooperatives in FTF target value chains and geographies to adopt modern, improved technologies and management practices in order to produce increased high-quality and diverse outputs.
Activity 14: Borlaug Higher Education for Agricultural Research Development (BHEARD)	08/15 – 09/20 (closed)	BHEARD's objectives are to: strengthen Rwandan agricultural research capability by training agricultural scientists from Rwandan agricultural research institutions; and improve the quality of agricultural education through training faculty members of the National University of Rwanda. By increasing the capacity of agricultural researchers in Rwanda to test and release, and market new technologies.
Activity 15: Access Finance Rwanda (AFR)	04/16 – 12/20 (closed)	USAID/Rwanda's AFR Activity is a contribution grant to the United Kingdom's Department for International Development (DFID) in support of Access to Finance Rwanda (AFR). The purpose of the grant is to utilize DFID's existing funding mechanism and proven expertise to leverage a relatively small contribution within a larger multi-donor pool of funds in a manner that maximizes USAID/Rwanda's impact on the development of Rwanda's financial sector in agriculture and agribusiness. AFR is Rwanda's largest financial inclusion program and is instrumental in the market development of financial service providers, such as SACCOs and digital financial services companies that increase access to financial services for the Rwandan population.
Activity 16: Tworore Inkoko, Twunguke (TI)	01/17 – 09/20 (closed)	Tworore Inkoko, Twunguke, which translates to "Let's Raise Chickens and Make Profit" aims to increase the capacity of smallholders to produce chicken meat, thus increasing the availability of animal-source protein and increasing the purchasing power of households— through heightened income levels— for nutritious foods. Using a private-extension model to train, supply resources for, and support smallholder households for successful broiler chicken production.