



Safeguard Risk Identification Form (SRIF)

Section 1: Project Overview

Identification	<i>Insert Project ID# from Programme Framework Table</i> AF- AF-2021000106 (CTCN 2021000039)
Project Title	<i>Insert title (adding words 'project preparation proposal for' before title)</i> Promoting climate adaptation by upscaling appropriate solar powered irrigation technology options for smallholder farmers in Ghana through innovative financing mechanisms, a conducive policy framework for technology regulation and tailored training modules.
Managing Division	UNEP – Economic Division – CTCN
Type/Location	<i>[Global/Normative; Regional; National]</i> National
Region	<i>(Africa/ Europe/ North America/ Asia Pacific/ Latin America Caribbean/ West Asia)</i> Africa
List Countries	<i>Enter country name(s)</i> Ghana
Project Description	<p>Provide the project summary and description in 2-3 paragraphs</p> <p>The objective of this technical assistance is to promote smallholder farmers' adaptation to climate change by providing a sustainable and efficient means of irrigation through the assessment of solar technology options, the design of an appropriate and sustainable business model for the lowest income, and the formulation of a policy framework for the use of Solar Powered Irrigation System (from now on referred as SPIS) in Ghana.</p> <p>This will include (i) a benchmark of available technology options best suited to smallholder farmers and water-scares environments, (ii) a policy framework to drive the setting of standards and certification that will support the deployment of a local market, (iii) recommendations on financing structures to extend credit and reach the unbanked smallholder farmers and (iv) training modules targeted at the users and administrators of the technology across the supply chain to support its sustainable use and long-term maintenance.</p> <p>The TA will focus on SPIS that builds on existing hard technology options in the country, and soft technology solutions that create an enabling environment for the uptake and dissemination of the technology (policy, training, and financing).</p> <p>The TA will ensure the involvement of financial institutions including micro finance institutions, rural banks and non-bank entities that could participate in the provision of financing services for smallholder farmers. The financing structures will consider appropriate risk mitigation instruments including insurance and guarantee structures aimed at crowding in private sector investments. Implicit for a successful financing structure is the aggregation of smallholder farmers to increase the scale of the opportunity.</p>



Relevant Subprogrammes	/
Estimated duration of project	<i>Provide the estimate in months from project kickoff to completion. Do not include time spent on concept or design.</i> 15 months
Estimated cost of the project	<i>Provide the estimated cost for entire project in USD.</i> 250,000 USD
Name of the UNEP project manager responsible	Rajiv Garg
Funding Source(s)	AFCIA
Executing/Implementing partner(s)	CTCN
SRIF submission version	<i>If it is not the first time, mark the time of your previous submission</i> Concept Review [] During Project development [] PRC [] Other _____ Version 1
Safeguard-related reports prepared so far <i>(Please attach the documents or provide the hyperlinks)</i>	<ul style="list-style-type: none"> • Feasibility report [] • Gender Action Plan [] • Stakeholder Engagement Plan [] • Safeguard risk assessment or impact assessment [] • ES Management Plan or Framework [] • Indigenous Peoples Plan [] • Cultural Heritage Plan [] • Others _____

Section 2: Safeguards Risk Summary

A. Summary of the Safeguards Risk Triggered

Safeguard Standards Triggered by the Project	Impact of Risk ¹ (1-5)	Probability of Risk (1-5)	Significance of Risk (L, M, H) <i>Please refer to the matrix below</i>
SS 1: Biodiversity, Ecosystems and Sustainable Natural Resource Management	1	1	L
SS 2: Climate Change and Disaster Risks	2	2	L
SS 3: Pollution Prevention and Resource Efficiency	1	1	L
SS 4: Community Health, Safety and Security	1	1	L
SS 5: Cultural Heritage	1	1	L

¹ Refer to UNEP Environmental and Social Sustainability Framework (ESSF): Implementation Guidance Note to assign values to the Impact of Risk and the Probability of Risk to determine the overall significance of Risk (Low, Moderate or High).

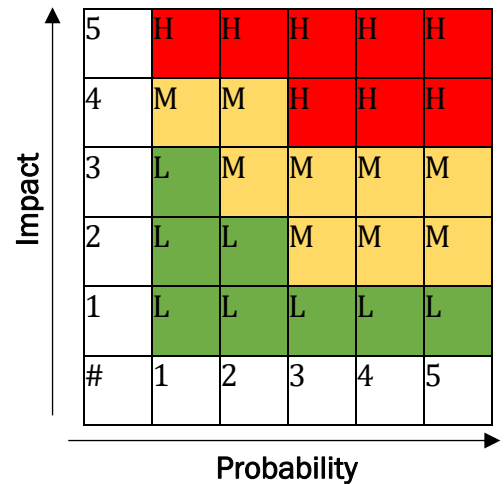


SS 6: Displacement and Involuntary Resettlement	1	1	L
SS 7: Indigenous Peoples	2	2	L
SS 8: Labor and working conditions	1	1	L

B. ESS Risk Level² -

Refer to the UNEP ESSF (Chapter IV) and the UNEP's ESSF Guidelines.

- Low risk
- Moderate risk
- High risk
- Additional information required



C. Development of SRIF and Screening Decision

Prepared by

Name: _____Rajiv Garg_____ Date: _____08 of December 2021_____

Screening review by

Name: Yunae Yi Date: 08/01/2022

Cleared³

D. Safeguard Review Summary (by the safeguard team)

This is a low risk project. However, the guiding principles (GP 1-10 in the Section 3 below) should be responded throughout the project implementation.

² **Low risk:** Negative impacts minimal or negligible: no further study or impact management required.

Moderate risk: Potential negative impacts, but limited in scale, not unprecedented or irreversible and generally limited to programme/project area; impacts amenable to management using standard mitigation measures; limited environmental or social analysis may be required to develop a Environmental and Social Management Plan (ESMP). Straightforward application of good practice may be sufficient without additional study.

High risk: Potential for significant negative impacts (e.g. irreversible, unprecedented, cumulative, significant stakeholder concerns); Environmental and Social Impact Assessment (ESIA) (or Strategic Environmental and Social Assessment (SESA)) including a full impact assessment may be required, followed by an effective comprehensive safeguard management plan.

³ This is signed only for the full projects latest by the PRC time.



A. Safeguard Recommendations (by the safeguard team)

- No specific safeguard action required
- Take Good Practice approach⁴
- Carry out further assessments (e.g., site visits, experts' inputs, consult affected communities, etc.)
- Carry out impact assessments (by relevant experts) in the risk areas and develop management framework/plan
- Consult Safeguards Advisor early during the full project development phase
- Other _____

Section 3: Safeguard Risk Checklist

Screening checklist	Y/N/ Maybe	Justification for the response (please provide answers to each question)
Guiding Principles (these questions should be considered during the project development phase)		
GP1 Has the project analyzed and stated those who are interested and may be affected positively or negatively around the project activities, approaches or results?	Y	The project has analyzed and has identified stakeholders who are going to be positively or negatively impacted by the project implementation in consultation with the Environmental Protection Agency of Ghana. The participation of women and youth will be proactively ensured throughout the implementation as per UN/CTCN rules. Local communities and governmental entities have been informed of the technical assistance through the Environmental Protection Agency of Ghana.
GP2 Has the project identified and engaged vulnerable, marginalized people, including disabled people, through the informed, inclusive, transparent and equal manner on potential positive or negative implication of		The project has identified the vulnerable groups, including small holders' farmers, and will ensure gender and youth participation during the implementation

⁴ Good practice approach: For most low-moderate risk projects, good practice approach may be sufficient. In that case, no separate management plan is necessary. Instead, the project document demonstrates safeguard management approach in the project activities, budget, risks management, stakeholder engagement or/and monitoring segments of the project document to avoid or minimize the identified potential risks without preparing a separate safeguard management plan.



<p>the proposed approach and their roles in the project implementation?</p>		<p>phase through trainings and stakeholder 's consultation process. The mapping of the stakeholders will be revised at the very beginning of the project and an inception meeting will be planned to inform the stakeholders of the start of the initiative one month after the signature of the contract between UNEP and the implementer.</p>
<p>GP3 Have local communities or individuals raised human rights or gender equality concerns regarding the project (e.g. during the stakeholder engagement process, grievance processes, public statements)?</p>		<p>No. During the formulation of the proposal no concerns were raised by local communities on human rights. On the contrary, the stakeholders are pushing to identify the best Solar Powered Irrigation Systems to be used in Ghana for smallholder farmers as it should have an impact on their annual revenues, and food security.</p>
<p>GP4 Does the proposed project consider gender-balanced representation in the design and implementation?</p>		<p>Yes. Gender representative participation has been considered in the design and implementation. As per the CTC-N guidelines approved by the Advisory Board under Climate Convention, a fixed percentage of the project costs are towards gender and youth.</p>
<p>GP5 Did the proposed project analyze relevant gender issues and develop a gender responsive project approach?</p>		<p>Yes, gender has been considered in the design of all the activities of the project proposal. The project team consists of one gender expert out of a team of 6 experts. The stakeholders will be mapped at the very beginning of the project with gender representative participation. An inception meeting will be organized one month after the signature of the contract between UNEP and the implementer. This inception meeting will be the opportunity to able to identify the needs, concerns, ideas, opportunities, roles in the implementation of each stakeholder.</p>
<p>GP6 Does the project include a project-specific grievance redress mechanism? If yes, state the specific location of such information.</p>		<p>Specific grievance redress mechanism</p>
<p>GP7 Will or did the project disclose project information, including the safeguard documents? If yes, please list all the webpages where the information is (or will be) disclosed.</p>		<p>CTC-N webpage and www.open.unep.org Safeguards documents will be uploaded after approval.</p>
<p>GP8 Were the stakeholders (including affected communities) informed of the projects and grievance redress mechanism? If yes, describe how they were informed.</p>		<p>Yes, the stakeholders were informed about the project and the grievance redress mechanism through the Environmental Protection Agency of Ghana. The Response Plan of the project provides the name of the focal point along with its contact details. The Response plan is public and can easily be accessed from the CTCN webpage. (Please refer to the link provided in GP7). Stakeholders will be engaged during the implementation of the project through</p>



		stakeholder consultations and capacity building that have been planned at all stages of the implementation.
GP9 Does the project consider potential negative impacts from short-term net gain to the local communities or countries at the risk of generating long-term social or economic burden? ⁵		No, the project is a technology assessment and will assess solar technology options, the design of an appropriate and sustainable business model for the lowest income, and the formulation of a policy framework for the use of Solar Powered Irrigation System in Ghana. There are no negative impacts foreseen, on the contrary the local community is keen to that create an enabling environment for the uptake and dissemination of the technology (policy, training, and financing).
GP10 Does the project consider potential partial economic benefits while excluding marginalized or vulnerable groups, including women in poverty?		The project is expected to have direct impact on food security, as well as the economic activities of the local farmers, including women and youth. Please, refer to section 6, 10, Contribution to the SDGs of the Response Plan .
Safeguard Standard 1: Biodiversity, Ecosystems and Sustainable Natural Resource Management		
<i>Would the project potentially involve or lead to:</i>		
1.1 conversion or degradation of habitats (including modified habitat, natural habitat and critical natural habitat), or losses and threats to biodiversity and/or ecosystems and ecosystem services?		No. There are no conversion or degradation of habitats, neither are losses or threats to biodiversity and/or ecosystems and ecosystem services.
1.2 adverse impacts specifically to habitats that are legally protected, officially proposed for protection, or recognized as protected by traditional local communities and/or authoritative sources (e.g. National Park, Nature Conservancy, Indigenous Community Conserved Area, (ICCA); etc.)?		<p>Ghana's population is composed of over fifty distinct groups. While most are from Akan, Ewe, Ga and Mole-Dagbani backgrounds, Ghana has attracted migrants from all of West Africa such that almost every West African group is present in its heterogeneous population including Fula, Hausa, Igbo, Mande, Mossi, Songhai and Yoruba. About 21 per cent of the population maintains traditional animistic beliefs. Christianity is the religion of 63 per cent of the population. About 16 per cent of Ghanaians are Muslim.</p> <p>The rating of the safeguards has been scored as a risk - level 2 as the project will be implemented at national level, and its impact on traditional local communities is unknown.</p> <p>Nonetheless, the technical assistance aims at promoting smallholder farmers' adaptation</p>

⁵For example, a project may consider investing in a commercial shrimp farm by clearing the nearby mangrove forest to improve the livelihood of the coastal community. However, long term economic benefit from the shrimp farm may be significantly lower than the mangroves if we consider full costs factoring safety from storms, soil protection, water quality, biodiversity and so on.



		to climate change by providing a sustainable and efficient means of irrigation through the assessment of solar technology options, the design of an appropriate and sustainable business model for the lowest income, and the formulation of a policy framework for the use of Solar Powered Irrigation System (from now on referred as SPIS) in Ghana and should not negatively impact local habitats and their traditional local communities, at the contrary, it should enable a better use of surface and groundwater, and more sustainable agriculture practices.
1.3	conversion or degradation of habitats that are identified by authoritative sources for their high conservation and biodiversity value?	No, the project is not implemented in an area identified by authoritative sources for their high conservation and biodiversity value.
1.4	activities that are not legally permitted or are inconsistent with any officially recognized management plans for the area?	No, the project will not be in an area where activities are not legally permitted.
1.5	risks to endangered species (e.g. reduction, encroachment on habitat)?	No, the project is expected to create an enabling environment for the uptake and dissemination of the Solar irrigation Pumping Systems (policy, training, and financing) in Ghana.
1.6	activities that may result in soil erosion, deterioration and/or land degradation?	No, the project is expected to create an enabling environment for the uptake and dissemination of the Solar irrigation Pumping Systems (policy, training, and financing) in Ghana.
1.7	reduced quality or quantity of ground water or water in rivers, ponds, lakes, other wetlands?	No, solar irrigation technologies can be implemented along with efficient irrigation practices that enable an improved use of water.
1.8	reforestation, plantation development and/or forest harvesting?	No, the project is not planning any reforestation, plantation development and/or forest harvesting.
1.9	support for agricultural production, animal/fish production and harvesting	Yes, the project is expected to support agricultural production by improving the access to water to smallholder farmers.
1.10	introduction or utilization of any invasive alien species of flora and fauna, whether accidental or intentional?	No.
1.11	handling or utilization of genetically modified organisms?	No.
1.12	collection and utilization of genetic resources?	No.
Safeguard Standard 2: Climate Change and Disaster Risks		
<i>Would the project potentially involve or lead to:</i>		
2.1	improving resilience against potential climate change impact beyond the project intervention period?	Yes, the project, if found feasible, will lead to increase resilience against potential climate change impact beyond the project intervention period. Implementation of SPIS for smallholder farmers could be initiated.
2.2	areas that are now or are projected to be subject to natural hazards such as extreme temperatures,	Ghana's 4th National communication to the UNFCCC indicates that temperatures in the



<p>earthquakes, extreme precipitation and flooding, landslides, droughts, severe winds, sea level rise, storm surges, tsunamis or volcanic eruptions in the next 30 years?</p>		<p>country are most likely to increase by at least 3°C by 2080 nationwide with the savanna regions recording temperatures above 30°C. The impact of this increased temperature includes a decrease in the length of the wet season, an increase in the number of dry days per month, heatwaves and potential evapotranspiration leading to increasing risk of droughts. A recent study from the International Food Policy Research Institute shows a yield decrease of around 25% for main rainfed crops (maize, rice, and groundnuts) by 2050 due to climate change impacts.</p>
<p>2.3 outputs and outcomes sensitive or vulnerable to potential impacts of climate change (e.g. changes in precipitation, temperature, salinity, extreme events)?</p>		<p>No.</p>
<p>2.4 local communities vulnerable to the impacts of climate change and disaster risks (e.g. considering level of exposure and adaptive capacity)?</p>		<p>Yes, agriculture is a major sector of Ghana. The agriculture sector in Ghana employs about 47% of the country's labour force, most of which are smallholder farmers. These farmers produce about 80% of the country's total food needs. About 90% of farm holdings in the country are less than 2 hectares in size, resulting in small scale, subsistence farming, with most of the farmers relying on rainfall.</p>
<p>2.5 increases of greenhouse gas emissions, black carbon emissions or other drivers of climate change?</p>		<p>No.</p>
<p>2.6 Carbon sequestration and reduction of greenhouse emissions, resource-efficient and low carbon development, other measures for mitigating climate change</p>		<p>This is an adaptation project but is likely to have a positive impact on climate mitigation. As the GHG emission due to use of Solar pump would be reduced than using the diesel operated pumps.</p>
<p>Safeguard Standard 3: Pollution Prevention and Resource Efficiency</p>		
<p><i>Would the project potentially involve or lead to:</i></p>		
<p>3.1 the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?</p>		<p>No.</p>
<p>3.2 the generation of waste (both hazardous and non-hazardous)?</p>		<p>No.</p>
<p>3.3 the manufacture, trade, release, and/or use of hazardous materials and/or chemicals?</p>		<p>No.</p>
<p>3.4 the use of chemicals or materials subject to international bans or phase-outs? (e.g. DDT, PCBs and other chemicals listed in international conventions such as the Montreal Protocol, Minamata Convention, Basel Convention, Rotterdam Convention, Stockholm Convention)</p>		<p>No.</p>
<p>3.5 the application of pesticides or fertilizers that may have a negative effect on the environment (including non-target species) or human health?</p>		<p>No.</p>



3.6	significant consumption of energy, water, or other material inputs?		No, solar pumping irrigation technologies associated with best irrigation practices enable an efficient use of water.
Safeguard Standard 4: Community Health, Safety and Security			
<i>Would the project potentially involve or lead to:</i>			
4.1	the design, construction, operation and/or decommissioning of structural elements such as new buildings or structures (including those accessed by the public)?		No.
4.2	air pollution, noise, vibration, traffic, physical hazards, water runoff?		No.
4.3	exposure to water-borne or other vector-borne diseases (e.g. temporary breeding habitats), communicable or noncommunicable diseases?		No.
4.4	adverse impacts on natural resources and/or ecosystem services relevant to the communities' health and safety (e.g. food, surface water purification, natural buffers from flooding)?		No negative impacts on the contrary, positive impacts are foreseen.
4.5	transport, storage use and/or disposal of hazardous or dangerous materials (e.g. fuel, explosives, other chemicals that may cause an emergency event)?		No.
4.6	engagement of security personnel to support project activities (e.g. protection of property or personnel, patrolling of protected areas)?		No.
4.7	an influx of workers to the project area or security personnel (e.g. police, military, other)?		No.
Safeguard Standard 5: Cultural Heritage			
<i>Would the project potentially involve or lead to:</i>			
5.1	activities adjacent to or within a Cultural Heritage site?		No.
5.2	adverse impacts to sites, structures or objects with historical, cultural, artistic, traditional or religious values or to intangible forms of cultural heritage (e.g. knowledge, innovations, practices)?		No.
5.3	utilization of Cultural Heritage for commercial or other purposes (e.g. use of objects, practices, traditional knowledge, tourism)?		No.
5.4	alterations to landscapes and natural features with cultural significance?		No.
5.5	significant land clearing, demolitions, excavations, flooding?		No.
5.6	identification and protection of cultural heritage sites or intangible forms of cultural heritage?		No.
Safeguard Standard 6: Displacement and Involuntary Resettlement			
<i>Would the project potentially involve or lead to:</i>			
6.1	full or partial physical displacement or relocation of people (whether temporary or permanent)?		No.
6.2	economic displacement (e.g. loss of assets or access to assets affecting for example crops, businesses, income generation sources)?		No.



6.2	involuntary restrictions on land/water use that deny a community the use of resources to which they have traditional or recognizable use rights?		No.
6.3	risk of forced evictions?		No.
6.4	changes in land tenure arrangements, including communal and/or customary/traditional land tenure patterns (including temporary/permanent loss of land)?		No.
Safeguard Standard 7: Indigenous Peoples			
<i>Would the project potentially involve or lead to:</i>			
7.1	areas where indigenous peoples are present or uncontacted or isolated indigenous peoples inhabit or where it is believed these peoples may inhabit?		Ghana's population is composed of over fifty distinct groups. While most are from Akan, Ewe, Ga and Mole-Dagbani backgrounds, Ghana has attracted migrants from all of West Africa such that almost every West African group is present in its heterogeneous population including Fula, Hausa, Igbo, Mande, Mossi, Songhai and Yoruba. The rating of the safeguards has been scored as level 2 as the project will be implemented at national level.
7.2	activities located on lands and territories claimed by indigenous peoples?		The Technical assistance will be implemented at national level. The Safeguard has been rated as risk level 2.
7.3	impacts to the human rights of indigenous peoples or to the lands, territories and resources claimed by them?		No, the project is a pre-feasibility study which will not have impacts on human rights of indigenous peoples or to the lands.
7.4	the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?		No, the project will focus on existing cultivations.
7.5	adverse effects on the development priorities, decision making mechanisms, and forms of self-government of indigenous peoples as defined by them?		No.
7.6	risks to the traditional livelihoods, physical and cultural survival of indigenous peoples?		No.
7.7	impacts on the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?		No.
Safeguard Standard 8: Labor and working conditions			
8.1	Will the proposed project involve hiring or contracting project staff?		Yes. The implementer will be a network member selected through the bidding process under UNGM and will be mandated to respect the UN code of conduct rules and will meet all the requisites.
<i>If the answer to 8.1 is yes, would the project potentially involve or lead to:</i>			
8.2	working conditions that do not meet national labour laws or international commitments (e.g. ILO conventions)?		No.
8.3	the use of forced labor and child labor?		No.



8.4	occupational health and safety risks (including violence and harassment)?	No.
8.5	the increase of local or regional unemployment?	No.
8.6	suppliers of goods and services who may have high risk of significant safety issues related to their own workers?	No.
8.7	unequal working opportunities and conditions for women and men	No.