Monitoring & Evaluation (M&E) Plan and Impact Statement Form

Objective of the M&E Plan and Impact Statement:

- The M&E Plan and Impact Statement must be designed based on the Technical Assistance Response Plan and must enable the Implementer to complete the Closure Report at the end of the assistance.

Process for filling in the form:

- The Implementer must identify relevant quantitative and qualitative indicators as specified in the Closure Report. A sub-set of indicators to monitor and assess must be chosen among these.
- The Implementer may also identify other specific, measurable, achievable, relevant, and time-bound indicators suitable to monitor Activities, Outputs and anticipated Outcomes from the technical assistance and add to the M&E Plan and Impact Statement.
- During implementation of the TA or FTA, the Implementer must collect all relevant data as described in the Monitoring & Evaluation Plan. Aggregated data on selected indicators as well as an updated version of the Impact Statement will be presented in the Closure Report at the end of the assistance.

Basic Information	
Title of response plan	Support for capacity building for solar technicians – installation, maintenance, andupkeep of solar equipment
Technical assistance reference number	**2019000022**
Country/ countries	**Burundi**
NDE focal point and organisation	**Astere Nindamutsa** Geographic Institute of Burundi (IGEBU)
Sector(s) addressed	**Energy, Electricity**
Technologies supported	**Solar PV**
Implementation period and total duration	**24.03.2021 – 23.03.2022**
Total budget for implementation	**$150,000**
Designer of the response plan	**NREL (Jal Desai)**
Implementer of response plan	**NREL**

(A) Outputs and Activities as described in the Response Plan	(B) Indicator	(C) Expected results	(D) Method and frequency for data collection	(F) Comments
Overall indicators	**Indicator 2**: Infrastructure/Built Environment, Economic	Increased number of installed and operational PV systems to reduce dependence on fossil fuels & accelerate decarbonization. Increase energy resilience & security.	Training follow-up consultation with project proponents	Dependent upon responses from project proponents
		Anticipate XX new solar installations equating to XX installed kW. (Need proponent input for this metric)	Training follow-up consultation with project proponents	Dependent upon responses from project proponents
		Anticipate xx installers with increased skills and support work force development.	Training follow-up consultation with project proponents	Dependent upon responses from project proponents
	Indicator 3: Anticipated number of Mitigation beneficiaries	20-25 direct & indirect beneficiaries who will receive the training.	Selection of 18-20 training participants in coordination with the NDE and project proponent plus other stakeholders to attend the training.	Development of work plan, communication documents is mostly related to project management and administration, and training material development is limited to NREL, GLICE, and the project proponent.
		XX number of people directly served by RE	Assess number & size of installations, location, and number	Success in obtaining this information is contingent on

		systems.	of people in population served	feedback from project proponents and other stakeholders
Output 1: Development of implementation planning, communication documents, and training materials	**Indicator 2: ???**	Create 8 training modules to deliver during the actual training in English and French.	.	
Activity 1.1: Development of workplan, M&E Plan, Impact Description and Closure and data collection report	**???**			
Activity 1.2: Identify stakeholders and participants	**Indicator 3??? (Total Beneficiaries)**			
Activity 1.3: Review timeline and draft outline for the training	**???**			
Activity 1.4: Gather feedback on the training materials	**???**			
Activity 1.5: Translate the materials from English to French	**???**			
Output 2: Conduct Training	**Indicator 3:** Anticipated number of Mitigation beneficiaries.	Training participants will have an improved understanding of the requirements for a high-quality solar PV installation and maintenance program. *~50 direct & indirect mitigation beneficiaries* *18-20 trainees *8-10 additional	Survey & participation list. Frequency at beginning and end of training.	Will utilize survey at end of training to ask trainees how many installers they in turn train with the information and skills will they learned.

Commented [HV1]: Difficult to identify a specific indicator for developing these materials. Valentin, what do you suggest? Perhaps Indicator 2, Economic? As in creating training content and administrative documents to support workforce development in the end? This question goes to all activities called out under this output.

		stakeholders attending. Minimum 20 installers trained by the new trainers.		
Activity 2.1: Training logistics such as training location, training dates, arrange participants travel				
Activity 2.2: Deliver Training				
Activity 2.3: Post-Training debrief meeting with all the stakeholders (virtual)				
Output 3 - Development of a strategy and plan for a renewable energy promotion Center	**Indicator 2:** Infrastructure/built environment, economic, health & well-being.	Inspires innovation and adoption of renewable energy technologies throughout the country. Anticipate xx RE projects deployed. Potential to create xx jobs in RE sector, reducing carbon emissions & mitigating climate change.	Follow up with project proponents & NDE to assess progress on development of the Center. Every 6 months after plan is delivered for 1 year minimum. .	Success in collecting this information is contingent upon responses and feedback from project proponents.
Activity 3.1: Review of documents and collection of inputs	**???**			
Activity 3.2: Develop a strategy and plan for a renewable energy and promotion centre	**Indicator 2:** Economic	Supports job creation, economic growth, and improved livelihood as more adoption of RE occurs and jobs are created.	Follow up with project proponents & NDE to assess progress on development of the Center. Every 6 months after plan is delivered for 1 year.	Success in collecting this information is contingent upon responses and feedback from project proponents.

Commented [HV2]: For these 3 acitivities we are Unclear as to which indicator we should map to. Is it #4 - leveraged funds?

Commented [HV3]: Unclear as stated in similar comment above.

		Delivers economic resilience through reduction in dependence on fossil fuels.		
Activity 3.3 Present strategy and plan to stakeholders	**???**			

Commented [HV4]: Unclear

Note: The Response Plan may contain information useful for the section below. The information in the table below will be used by the CTCN for public communication of the achieved and expected results of the Technical Assistance through the CTCN website www.ctc-n.org and other communication channels. See for example: https://www.ctc-n.org/sites/www.ctc-n.org/files/benin_a_ag_forestry.final_.pdf

Impact Statement	
Challenge	A low percentage of Burundi's population has electricity access, particularly in rural areas. Burundi has embarked on a national solar PV-based rural electrification program. But the program has difficulties related to a shortage of trained technicians capable of properly installing & maintaining solar PV systems, & installed solar PV facilities are often out of order or not performing according to their designed output, which contributes to creating negative perception of solar PV as an energy solution.
CTCN assistance	• Develop training methodology and materials in French language for a 5-day workshop. • Manage and deliver PV Installer training the trainer programme at in-country location. • Support development of a strategy and plan for a renewable energy promotion center in Burundi that is designed to support innovation, build awareness, and increase adoption and deployment of renewable energy technologies.
Anticipated impact	• Increased amount of trained solar PV technicians • Restoration of existing & defunct installations. (Indicator 2) • Higher employment & more products would be available in the market which would increase their income. (Indicators 2&3) • Greater interest in solar energy will reduce deforestation & address health problems linked to air pollution. (Indicator 2)
Anticipated co-benefits from the TA	• Solar PV energy can reduce the need for other energy sources, such as firewood. • Solar PV can reduce pollution from other energy sources (e.g., wood burning and charcoal). • Solar PV can provide cost-effective energy for the energy impoverished. • Solar PV can be used for irrigation and water pumping. • Access to solar energy can enhance gender equality by removing or reducing the need to gather other energy sources and by enabling new entrepreneurial endeavors. • Solar PV can provide energy for lighting, enabling studying after dark enhancing education. • Will contribute to achieve this nation goal of providing modern energy especially in rural areas.

	• Increased and targeted financing of renewable energy projects
Gender aspects of the TA	A gender expert will be assigned to carry out an assessment and evaluation regarding gender mainstreaming during the implementation of this technical assistance. It will be ensured that these women will be represented accordingly, in all training activities carried out during the implementation of this response plan if it is applicable with the required expertise. Furthermore, it will be ensured that female experts are involved in all consultations to ensure their perspectives are considered. This Project will pursue thorough and gender-responsive integration and ensure stakeholder involvement at all levels, with special regard to involving women. It will be ensured that women are included in the development of training materials and women's interests are considered during the development. It is intended that the role of the trained female experts in the team will be strengthened to ensure equal opportunities.
Anticipated contribution to NDC	1.Development of Infrastructures (Energy, Drinking water, Transport, ICT.) 2. Strengthening education system and improving the quality of education and the supply of training. 3. Sustainable management of the environment 4. This TA will support these ambitions & will focus on increasing awareness and strengthening managerial and technical capacities around solar PV system installation & maintenance.
The narrative story	*Approximately 1200 characters with spaces* A low percentage of Burundi's population has electricity access, particularly in rural areas. Furthermore, the country relies on fossil fuels for energy generation, increasing GHG emissions of the country. Burundi has set a goal of diversifying its primary energy mix to take advantage of favorable indigenous renewable energy resources. One key source of diversification will be electricity generated by solar photovoltaic (PV) technologies, which will help to reduce carbon emissions and dependency on imported fuel, address adaptive capacity to climate change, improve energy access, & increase national generating capacity. Therefore, Burundi has embarked on a national solar PV-based rural electrification program. But the program has difficulties related to a shortage of trained technicians capable of properly installing & maintaining solar PV systems, & installed solar PV facilities are often out of order or not performing according to their designed output, which contributes to creating negative perception of solar PV as an energy solution. In this context, Burundi has requested CTCN's technical assistance to develop and deliver a Solar PV training the trainers programme, and to develop a strategy and plan for the implementation of renewable energy promotion center. The anticipated outcome of this project will be a technically competent local solar PV trainer & installer workforce in Burundi, trained to install, operate, & maintain solar PV systems as well as to replicate training. The assistance will help to create a renewable energy promotion center in Burundi, by sharing

	knowledge, best practices, & examples for devising strategies to set up groups to promote research & innovation in solar energy. Through the capacitation of the renewable energy promotion center for technicians and innovation groups, the continuity of optimally designed, correctly installed, & properly maintained PV systems will be insured, thus helping to deliver a sustainable low-carbon energy future for Burundi.
Contribution to SDGs	https://sustainabledevelopment.un.org/partnership/register/. SDG1: End poverty in all its forms everywhere • Solar PV can provide lost-cost energy and job opportunities. SDG5: Achieve gender equality and empower all women and girls. • Access to solar energy can enhance gender equality by removing or reducing the need to gather other energy sources and by enabling new entrepreneurial endeavors. SDG13: Take urgent action to combat climate change and its impacts. • Supports Burundi to mitigate GHG emissions from the electricity sector by scaling up electricity generated from renewable energy resources. This TA aligns with the Point 7 of the National Strategy on Climate Change which emphasizes capacity building (training, awareness-raising etc.)
Reference to knowledge products	Not to date. To be determined and updated at end of TA.