

PROJECT DOCUMENT

Empowered lives.  
Resilient nations.

**Project Title:** Greening the Raleigh Fitkin Memorial Hospital demonstration project in Manzini, Eswatini

**Project Number:**

**Implementing Partner:** Ministry of Tourism and environmental Affairs

**Start Date:** 20<sup>th</sup> March 2020 **End Date:** 20<sup>th</sup> March 2021 **PAC Meeting date:** 18<sup>th</sup> March 2020

### Brief Description

Eswatini recognises that climate change can severely impact on the achievement of the ultimate vision for the country. As such, climate change is considered a priority development concern, and the country is committed to taking urgent and long-term actions to reduce vulnerability of its people and risks to national development.

Eswatini has contributed little to greenhouse gas (GHG) concentrations in the atmosphere. Estimates put Eswatini's 2010 emission inventory at 0.8 MtCO<sub>e</sub> (including land use, land use change and forestry (LULUCF) sector), meaning that Eswatini's emissions represent less than 0.002% of global emissions. Despite not emitting large quantities of GHGs, Eswatini is facing severe climate change impacts. Eswatini is a small, developing country and is vulnerable to the impacts of climate change - though not a large GHG emitter - with per capita emissions of 0.6 tCO<sub>2</sub>e/year in 2010 - Eswatini remains committed to contributing to the transition towards a low carbon and climate resilient future. To this effect, Eswatini submitted its Intended Nationally Determined Contribution (INDC) to the Convention as one of the steps the country is taking towards development of an effective climate change response, both in terms of reducing GHG emissions and adapting to the impacts of climate change. The INDC supports the achievement of Eswatini's developmental objectives of sustainable development, poverty eradication and enhanced adaptive capacity.

Realizing this shift to clean accessible, affordable and renewable energy has been slow and hampered by several challenges. These include but are not limited to: Limited installation of clean renewable energy off grid/on-grid decentralised technology systems, Historically accustomed use of installed old energy generation system, limited awareness of the high energy demand and cost effects of inefficient technologies and appliances, limited awareness of the comparatively high costs of the current old fossil based coal electricity generation system as well as inadequate awareness of available renewable energy technologies. These challenges have effectively led to high GHG emissions (CO<sub>2</sub>) and high demand and cost of energy for many service facilities, including the Raleigh Fitkin Memorial Hospital that still uses old fossil-based power and heat generation systems.

There have been few documented pilots for making a business case for investments in clean, affordable renewable energy technologies and systems in Eswatini and as such limited awareness of the potential of such systems in increasing access to clean energy. Greening of the energy systems for the Raleigh Fitkin Memorial Hospital provides a great opportunity to pilot and demonstrate the benefits of access to clean energy systems that can be replicated in other public and private institutions with benefits of reduced energy demand, reduced energy costs while contributing to reducing GHG emissions and contributing to job creation and well-being of the population.

Eswatini recognizes that access to renewable forms of energy plays a significant role in improving livelihoods of its people economic growth and has included specific actions towards promotion of access to renewable energy in its NDCs. The planned interventions cover grid and off applications were Eswatini will implement small scale, decentralized renewable energy technologies to improving universal energy access for the hospital and improve service delivery to

vulnerable women and children. Other interventions will include increasing the use of grid connected renewable energy technologies with fuel sources such as waste, solar, bagasse (from the sugar industry) and wood chips. Increasing the renewable energy in the energy mix will increase access to clean and renewable energy from decentralized grid systems. It will also contribute, though in a small way, to reducing GHG emissions from the energy sector and contributing to the global goal of reducing emissions by 45% by 2030.

The Government of the Kingdom of Eswatini and the Republic of Italy concluded a Memorandum of Understanding (MOU) with the objective of strengthening and coordinating their efforts to combat global climate change and address its adverse effects, to support mechanisms for regional climate change vulnerability and risk assessment, to promote clean and efficient energy, to stimulate and disseminate the economic and technological transformation to low emission. Through this MOU funding has been guaranteed for the Kingdom of Eswatini. UNDP signed an agreement with the Government of Italy for EUR 7 million in support of energy security, protect the environment and natural resources and create adaptation actions to build resilience and increase adaptive capacity while ensuring sustainable development. The cooperating partners have since agreed on a concept for funding focusing on renewable energy, namely 'Greening the Raleigh Fitkin Memorial Hospital demonstration project'.

To address the key challenges highlighted, the project will use a sequenced approach that starts by working on increasing access to renewable clean and modern energy sources and energy efficient appliances. This will contribute to reduced energy demand and cost of energy while reducing CO2 emissions and improving the primary health care service delivery and wellbeing of the hospital catchment population.

The demonstration project will introduce use of clean energy opportunities that will be replicated in other hospitals, public and private institutions throughout the country. Infrastructure will be upgraded, power delivery will be reliable and life cycle costs of power generation, supply and use will be less when compared with the current coal-based power infrastructure. The project will demonstrate viable technical, financial and environmental measures that could be considered for replication. Monitoring and documenting the results of the demonstration project are key to building a portfolio of (similar) projects for replication.

The project will specifically pilot, demonstrate and document the benefits of using clean and low-cost energy systems and appliances and sharing the information for awareness raising. The approach and strategy will be to pilot the replacement of old energy systems with clean, renewable and affordable systems that will demonstrate the reduction in energy demand and cost of energy.

The project strategy is to demonstrate the reduction in emissions, energy demand and cost of energy by replacing the dirty, non-renewable, expensive and inefficient fuel sources of energy in use. This will involve replacing the existing coal steam generator with an electric high efficiency device. This will help save 400 KwH/day. The steam supplied devices will also be replaced with electric supplied high efficiency devices and thereby reduce the energy demand and cost. To address the low access to clean renewable energy systems, a Photovoltaic system will be installed with a power transmission grid extended to RFM Hospital. This will also contribute to reducing emissions from use of diesel generators during power cuts. Energy delivery will be reliable and life cycle costs of power generation, supply and use will be less when compared with the current coal-based power infrastructure. The project will also contribute to increasing the contribution of renewable energy in the total energy mix.

In addressing the second challenge of limited awareness of the benefits of using renewable energy technologies and systems, the project will involve energy experts in the local communities / around the RFM Hospital and engage both women and youth in the process of installation and monitoring of the project execution such as the replacement of inefficient fluorescent bulbs with energy efficient LED bulb, cooling and heating systems and replacement of the coal powered

energy system.

Evidence in terms of the reduction in energy demand and cost of energy from use clean renewable energy technologies and appliances will be documented and shared with public and private institutions, communities and individuals. This will be undertaken through organized visits, workshop, Road shows and exhibitions at commercial shows and other similar events to raise awareness and promote replication of the project. Underlying root cause related to policies for incentivising investments in clean renewable decentralized energy systems will be informed by the experiences from the project using briefs and policy briefs designed for policy-makers.

### **Expected Results**

With the overall goal of improving access to affordable clean energy, energy efficiency and use of low carbon renewable energy technologies, the project has two interlinked and inter-related outcome areas. The two are framed around reducing the energy demand and costs while increasing access to clean renewable energy system on one hand and raising awareness on the benefits of using clean renewable energy sources and use of energy efficient systems. The two outputs contribute to the achievement of the project outcome.

**Project Outcome:** Improved access to affordable clean energy, energy efficiency and use of low carbon renewable energy technologies promoted towards a climate resilient low emission sustainable development.

### **Project Outputs:**

#### **Output 1: Reduced GHG emissions, energy demand and energy costs for the RMH hospital Energy systems**

- **Activity 2.1:** Undertake project preparatory activities
- **Activity 2.2:** Installation of a 1-MW photovoltaic power plant including battery storage and a transmission line connecting the RFM Hospital
- **Activity 2.3:** Replacement of energy inefficient lighting, heating and cooling systems

#### **Output 2: Awareness raised on the benefits of renewable energy technologies and systems**

- **Activity 2.1:** Design a functional monitor and reporting system on reduced energy demand, CO2 emissions as well as associated energy cost savings;
- **Activity 2.2:** Document results of the pilot on benefits of improved access to clean and renewable energy share with relevant stakeholders both in the public and private to raise awareness and promote replication of the project and uptake of use of clean renewable energy systems and technologies;
- **Activity 2.3:** Develop a strategy and plan for replicating of this project to other public and private hospitals, government institutions and other service facilities and implement the plan in partnership with the government

This demonstration project introduces a clean energy opportunity that is replicable for other hospitals, public and private institutions throughout the country. Not only will CO2 emissions be reduced, infrastructure will be upgraded, power delivery will be reliable and life cycle costs of power generation, supply and use will be less when compared with the current coal-based power infrastructure. The project will demonstrate viable technical, financial and environmental measures that could be considered for replication. Monitoring and documenting the results of the demonstration project are key to building a portfolio of (similar) projects for replication.

The project is aligned to Eswatini's Nationally Determined Contributions (NDCs) mitigation actions that include doubling the share of renewable energy in the national energy mix. The project is also aligned to the UNDP Eswatini Country Programme Document (CPD) 2016-2020 as well as UNDP's Signature Solution 5 on closing the energy gap by addressing access to clean and affordable energy as a critical enabler for sustainable development. This Signature solution also addresses SDG 7 on increasing access to affordable reliable and sustainable renewable energy and enhancing energy efficiency in a manner that is inclusive and responsive to the needs of different sectors of the population.

Contributing to UNDP Strategic Plan 2018-2021:  Signature solution # 5. Close the energy gap  Cross-cutting - Signature solution 6. Strengthen gender equality and the empowerment of women and girls.	<b>Total resources allocated:</b>	Euro 2,376,000
	<b>Total resources allocated:</b>	
	<b>UNDP TRAC:</b>	
	<b>Donor:</b>	Euro € 2, 200,000
	<b>Government:</b>	
	<b>In-Kind:</b>	€ 176,000
	<b>Total allocated:</b>	

Agreed by (signatures)<sup>1</sup>:

Government	UNDP	Implementing Partner
		
-----	Ms. Rose Ssebatindira	-----
Date:	Date: 25/03/2020	Date: 25/03/2020

<sup>1</sup> Note: Adjust signatures as needed

<sup>2</sup> The Gender Marker measures how much a project invests in gender equality and women's empowerment. Select one for each output: GEN3 (Gender equality as a principle objective); GEN2 (Gender equality as a significant objective); GEN1 (Limited contribution to gender equality); GEN0 (No contribution to gender quality)



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## I. DEVELOPMENT CHALLENGE

Eswatini recognises that climate change can severely impact on the achievement of the ultimate vision for the country. As such, climate change is considered a priority development concern, and the country is committed to taking urgent and long-term actions to reduce vulnerability of its people and risks to national development.

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This project conforms to broader national government policies, goals and commitments as elaborated in the country's Vision 2022. The project is fully aligned with the National Development Programme (NDP) Outcome 6 which speaks to the Ensured access to secure, clean and affordable energy and increasing the mix of conventional and renewable domestic power production with increased domestic power production, promote renewable energy production programmes especially through local power generation (promote Private Power Producers).

The project is aligned to Eswatini's Nationally Determined Contributions (NDCs) mitigation actions that include doubling the share of renewable energy in the national energy mix. The project is also aligned to the UNDP Eswatini Country Programme Document (CPD) 2016-2020 as well as UNDP's Signature Solution 5 on closing the energy gap by addressing access to clean and affordable energy as a critical enabler for sustainable development. This Signature solution also addresses SDG 7 on increasing access to affordable reliable and sustainable renewable energy and enhancing energy efficiency in a manner that is inclusive and responsive to the needs of different sectors of the population.

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## II. STRATEGY

The theory of change underpinning project design, implementation and strategic approach is summarized in Figure 1. The project will address historical root causes, underlying causes and immediate causes of the current energy challenges that have led to perpetual use of old and less efficient energy systems and appliances at the RFM Hospital. The context and the development challenge presented in the background section above and a multi-prong approach of undertaking pilots, capture and document lessons which will then be used to raise awareness on the cost-benefits of using renewable energy sources and energy efficient systems and appliances towards sustainable climate resilient and low carbon pathways.

To address the key challenges highlighted, the project will use a sequenced approach that starts by working on increasing access to renewable clean and modern energy sources and energy efficient appliances. This will contribute to reduced energy demand and cost of energy while reducing CO2 emissions and improving the primary health care service delivery and wellbeing of the hospital catchment population.

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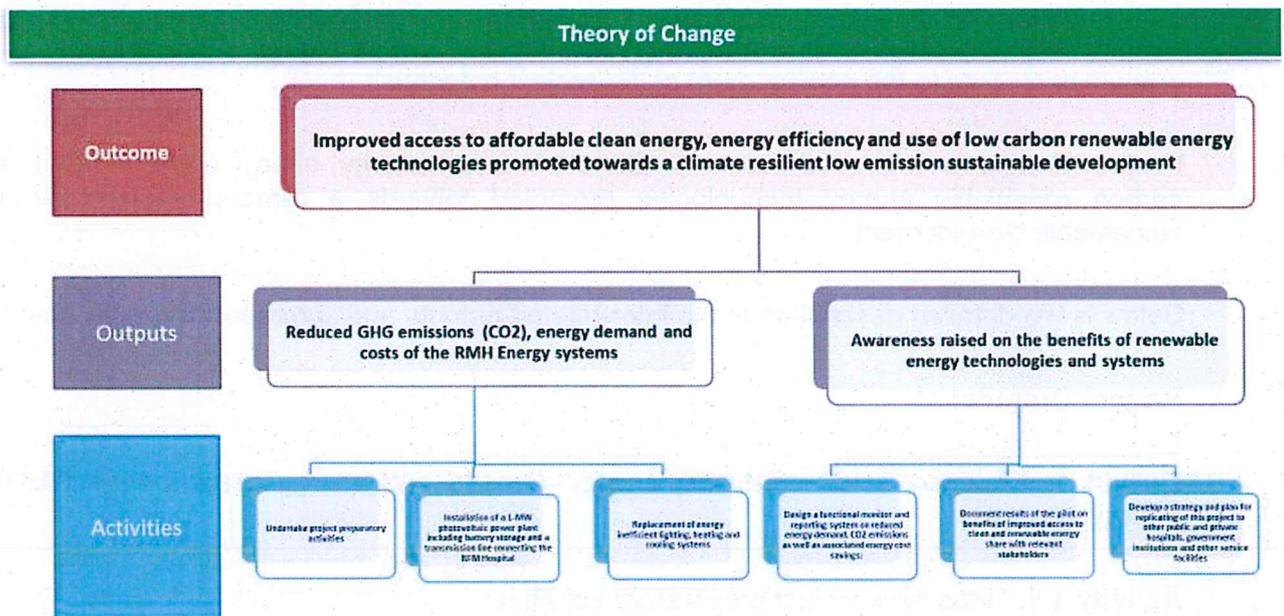


Figure 1: Project Theory of Change

The key assumption is that the energy demand and the energy cost for the RFM Hospital will be reduced as a result of improved access to affordable clean energy, energy efficiency and use of low carbon renewable energy technologies. The project will thereby contribute towards a climate resilient low emission sustainable development pathway for Eswatini.

The assumptions towards the project contributing to reduced energy demand and costs is based on the feasibility study undertaken in May 2019 that collected and compiled technical information from the hospital that provides the baselines for monitoring progress towards achievement of the outcomes project expected. UNDP working with renewable energy technical partners has supported similar clean renewable energy projects through the Solar for health project and establishment of solar villages with associated mini-grids in several African countries.

The sustainability of the project investments is that government and/or the RFM Hospital will provide funds for recurrent operation and maintenance costs of the project. proved assets that will be acquired through this demonstration project. It is further assumed that all parties to the project will provide the needed inputs and technical guidance for the implementation of the project. The assumption is that the right equipment will be available, affordable and properly installed to avoid inefficiencies resulting from poor equipment or poor workmanship in installing the equipment. It is also assumed that communities and other stakeholders will be actively involved in the implementation of the project to guide the outputs and that enough capacity will be built to operate the system as well as further replicate the demonstration project nation-wide. The private sector will be fully and actively involved in the implementation of the demonstration project as pioneers in decentralised small-mini grid energy systems as they will be key in the replication of the project elsewhere as private sector or as private power producers

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### III. RESULTS AND PARTNERSHIPS

#### *Expected Results*

With the overall goal of improving access to affordable clean energy, energy efficiency and use of low carbon renewable energy technologies, the project has two interlinked and inter-related outcome areas. The two are framed around reducing the energy demand and costs while increasing access to clean renewable energy system on one hand and raising awareness on the benefits of using clean renewable energy sources and use of energy efficient systems. The two outputs contribute to the achievement of the project outcome.

**Project Outcome:** Improved access to affordable clean energy, energy efficiency and use of low carbon renewable energy technologies promoted towards a climate resilient low emission sustainable development.

Below is the detailed description of the inter-related outputs and corresponding activities:

#### **Project Outputs:**

**Output 1:** Reduced GHG emissions, energy demand and energy costs for the RMH hospital Energy systems

#### **Activity 1.1:** Undertake project preparatory activities

This activity will include the following sub-activities necessary to lay the groundwork for project implementation:

- Preparation of final specifications for the equipment and tender documents
- Selection of contractors and suppliers of equipment and appliances
- Preparation of Social and Environmental Impact and application submission for permit as well as finalization of SES
- Processing of electricity power generation license



**Activity 1.2:** Installation of a 1-MW photovoltaic power plant including battery storage and a transmission line connecting the RFM Hospital

The following sub-activities will be undertaken:

- Installation of a PV power plant
- Installation of a battery storage system
- Installation of step up/down transformers
- Construction and installation of MV line to distribute power from PV power plant to the RFM Hospital main switchboard

**Activity 1.3:** Replacement of energy inefficient lighting, heating and cooling systems

This will include the undertaking of the following sub-activities

- Replacement of high energy intensive bulbs and fittings with LEDs lamps
- Replacement of old electric heaters with high efficiency heat pumps
- Replacement of coal boiler by high efficiency heat pumps

**Output 2:** Awareness raised on the benefits of renewable energy technologies and systems

**Activity 2.1:** Design a functional monitor and reporting system on reduced energy demand, CO2 emissions as well as associated energy cost savings;

The following sub-activities will be undertaken under this activity:

- Establish a baseline of energy consumption prior to the installation of energy efficient appliances and devices and the PV power plant and a baseline of energy costs (electricity bill, coal costs, diesel costs and maintenance of the coal boiler and back-up diesel generator) prior to the installation of energy efficient appliances and devices and the PV power plant
- Selection and compilation of indicators for monitoring energy consumption and associated costs and greenhouse gas emission levels
- Design and implementation of a monitoring system to track and document emission trends, energy demand levels and energy costs at the RFM Hospital
- Monitoring and reporting of data on energy consumption and costs and Greenhouse gas emissions particularly CO2 emissions

**Activity 2.2:** Document results of the pilot on benefits of improved access to clean and renewable energy shared with relevant stakeholders both in the public and private to raise awareness and promote replication of the project and uptake of use of clean renewable energy systems and technologies;

This activity will include the following sub-activities:

- Capturing and documenting lessons and good practices from the implementation of the project and the key lessons and experiences
- Devising the best media of knowledge sharing to the key stakeholders
- Production of knowledge products on the cost-benefits of using renewable energy technologies / systems and efficient appliances and share among public and private sector relevant stakeholders using different multi-media channels
- Provide On-the-job and formal training for local professionals and expertise from public and private sectors on use of renewable energy and energy efficient systems by encouraging the contractor to engage local people in the implementation greening activities

- Develop a case study and conduct guest lectures at higher education
- Raise awareness and share knowledge with local actors in the clean energy sector

**Activity 2.3:** Develop a strategy and plan for replicating of this project to other public and private hospitals, government institutions and other service facilities and implement the plan in partnership with the government

This will include:

- Documentation of evidence-based lessons and experiences on the project cost-benefits Documenting the demonstration project through reports etc.
- Create a web presence
- Organise study tours for relevant stakeholders
- Establishment of the potential for replication (market assessment) and develop a replication strategy
- Resource mobilisation for replication of the demonstration project to other hospitals
- Use web-based innovations and various other platforms such as study tours to share policy briefs and benefits of using renewable energy relevant stakeholders and policy-makers to inform policy incentive measure to stimulate private sector investments into renewable energy systems

### **Resources Required to Achieve the Expected Results**

The resources required to deliver on these expected results is Euro 2.376 million, of which Euro 2.2 million has been committed by the Government of Italy through IMELS. The funding will be used to acquire and install equipment including the energy efficiency appliances and the PV power generation and distribution infrastructure, to contract experts and support teams as well as provisions of technical and administrative support services from the relevant ministries and UNDP. In-kind contributions are also anticipated from the RFM Hospital in terms of logistical and office (space). The UNDP country office will ensure that resources are managed as per the donor expectations and ensure adequate control and use of project resources ensuring value for money.

### **Partnerships**

The project will require strong partnerships across several public and private institutions with the Ministry of Tourism and Environmental Affairs leading the development and implementation of the demonstration project. The Ministry of Health responsible for the RFM Hospital and its operations will be actively involved in all the stages of project development, implementation and monitoring. The Ministry of Natural Resources and Energy (Department of Energy) as Responsible Party, the Eswatini Electricity Corporation and ENEA will be key actors on clean energy development and will provide technical backstopping and inputs on power distribution and Medium Voltage safety issues necessary during the installation of renewable energy systems and energy efficient devices. The University Centre for Energy will address the issues of domestication of experiences and technical capacities to ensure sustainability of the lessons while the Italian Government, through IMELS, will work closely with the recently established Africa Centre for Climate and Sustainable Development (located in Rome) and support the project in resource mobilisation for replication of the project in the future. UNDP will provide technical backstopping and coordinate the project resource flows and reporting between the Italian Government through IMELS and the Ministry of Tourism and Environmental Affairs.

The successful implementation of the project will require effective collaboration and coordination among these institutions. A proper stakeholder mapping will be essential at the initial stages of project implementation. The primary stakeholders (with high interest and influence on the project) will form part of the Project Steering Committee.

### **Risks and Assumptions**

The key assumption to the sustainability of the project investments are that government and/or the RFM Hospital will provide funds for recurrent operation and maintenance costs of the improved assets that are donated under this demonstration project. It is further assumed that stakeholders will be actively involved in the implementation of the project to guide the outputs and that enough capacity will be built to operate the system as well as further replicate the demonstration project nation-wide. Private sector representatives are expressly invited to take an active part in the project.

The achievement of results is premised on the acquisition and installation of the appropriate equipment within budget. Unfortunately, the technical specifications prepared by RINA Consulting includes a budget of Euro 2 million for hardware in terms of energy efficiency appliances and the PV power generation and distribution infrastructure. The pricing that has informed the project budget is based on equipment costs in Italy which may be different from the cost of the same equipment in Eswatini; i.e. higher price levels for the same hardware delivered, installed and commissioned in Eswatini compared to Italy. There is a risk that the equipment cost may go above budget and this would make the project not attain the intended results. This risk will be mitigated, with budget revisions to be negotiated during project inception and launch through the project steering committee.

The active involvement of local expertise might be challenging largely due to the absence of a vibrant energy efficiency and/or clean energy sector in Eswatini. Engaging the private sector will largely depend on whether commercially viable investments can be identified, developed and financed. Many factors are required for such viable commercial investment opportunities, but these are outside the sphere of influence of this project; e.g. political stability; credit worthiness of institutions involved in replication (hospitals); and public budget available for replication.

Mitigation of the above risks will start with closely monitoring them so that preventive and pre-emptive action can be undertaken. A reality check on the actual pricing will only become available when competitive financial proposals from interest electricity power contractors (including Italian ones) are presented following the call for tenders. When it turns out that Euro 2.367 million is insufficient, the Project Management will bring the issue to the Project Steering Committee for further guidance and advice. Involvement of local expertise should be encouraged in the technical proposals by the potential contractors through awarding extra points for it. Any other risks and mitigation measures will be identified at the inception and initial operational phases of the project and be dealt with when they emerge. Further, please refer to the Risk Log Framework in Annex 2.

### ***Stakeholder Engagement***

Several stakeholders will be engaged for this project to ensure its successful implementation. The stakeholders will have a say and contribute and influence decisions for effective project implementation. The project management will ensure that stakeholder participation promotes sustainable decisions by recognising and communicating the needs and interests for project success by providing all stakeholders with the information they need to effectively participate in a meaningful way.

The Government of Eswatini through the Ministry of Tourism and Environmental Affairs as the Implementing Partner, the Ministry of Natural Resources and Energy as the Responsible Party, the Ministry of Health as the project hosting institutions in charge of the RFM Hospital, the Italian Government as the source of the funds, the private sector and communities as key players in the implementation of the project and UNDP as a coordinating Agency for the project will provide essential support for effective management of the project. The Ministry of Tourism and Environmental Affairs as the Implementing Partner will work closely with the Ministry of Natural Resources and energy that will use its specialized skills in the Department of Energy to carry out project activities in its capacity as the Responsible Party.

Other stakeholders will be mobilised to take part in the project implementation through a stakeholder identification and analysis process. These will include other government ministries and Institutions, civil society organizations, Universities and possibly other similar initiatives to be

identified. The stakeholder engagement strategy will include identifying primary beneficiaries such as communities, the hospital, the Ministry of Health etc, the secondary beneficiaries such as the equipment suppliers, and other such. The Project Management Unit (PMU) composed of the Project Manager / Manager and Finance and Administrative Assistance will ensure effective project management and ensure stakeholders are fully engaged and participate.

### ***South-South and Triangular Cooperation (SSC/TrC)***

The project will draw on the UNDP's effective interlocutor experiences to leverage its network of offices, policy centres, expertise on similar projects undertaken in the regional and globally. South-South and Triangular Cooperation (SSC/TrC) will be promoted through various networks including the Global Policy network (GPN) to support the project to effectively engage in mutual learning and solution sharing for the benefit of the project. This will ensure that the project considers best practices and lessons on the use of renewable sources of energy and decentralized mini grids.

### ***Knowledge***

Generated knowledge and lessons learned from the project will be documented and shared to benefit others. Output 2 of the project focuses on awareness raising to be achieved by documentation of project results into knowledge products and information dissemination to the public and private sector on the benefits of using renewable energy sources and systems as well as energy efficient systems. The project proposes to use ICT innovations through web-based platforms as a medium for disseminating information and sharing of products developed by the project. Study tour type of activities will be undertaken for pre-selected relevant stakeholders to the RFM Hospital, including the PV power plant. Policy briefs for policy-makers, information brochures and leaflets about the project will be shared with stakeholders in meetings, exhibition and various workshops through side events.

### ***Sustainability and Scaling Up***

The project will involve government ministries and their staff which will ensure that staff capacities will be built in renewable energy systems and benefits of using energy efficient appliances. Replication and scaling are key objectives of this demonstration project as presented by Output 2. Replication towards a larger portfolio of similar institutions and hospitals will contribute to government's resolve to adopt and promote access to clean and renewable energy systems in public sector buildings. This will be ensured by the project's efforts at raising awareness of the multiple benefits of access to clean renewable energy.

The RFM Hospital will provide recurrent costs for maintenance and operation running costs of the installed renewable energy generation system and the use of energy efficient appliances to ensure sustainability of the project outcomes.



#### IV. RESULTS FRAMEWORK

**Outcome:** The demonstration project contributes to accelerating structural transformations for sustainable development, especially through innovative solutions that have multiplier effects across the Sustainable Development Goals and the implementation of the Paris Agreement.

**Applicable Signature Solutions from the UNDP Strategic Plan 2018-2021: #5.** Close the energy gap

**Project title and Atlas Project Number:** Greening the Raleigh Fitkin Memorial Hospital demonstration project, Manzini, Eswatini

EXPECTED OUTPUTS	OUTPUT INDICATORS	DATA SOURCE	BASELINE		TARGETS (by frequency of data collection)	DATA COLLECTION METHODS & SOURCE	
			Value	2020			2021
<b>Output 1: Reduced GHG emissions, energy demand and energy costs for the RMH hospital Energy systems</b>							
<b>Activity 1.1:</b> Undertake project preparatory activities.	Tender documentation prepared	Project documentation	0	2020	1	Tender documents	
	EPC contractor selected, contracted	Signed EPC contract	0	2020	Project documentation	1	EPC Contract
	Social and environmental impact permit successfully obtained, and SES strategy approved	Project documentation	0	2020	Project documentation	1	S&E Permit
	Electricity Power generation and distribution licenses successfully obtained	Project documentation	0	2020	Project documentation	1	Generation and Distribution licenses
<b>Activity 1.2:</b> Installation of a 1-MW photovoltaic power plant including battery storage and a transmission line connecting the RFM Hospital	PV power plant installed	Project documentation	0	2020	Project documentation	1 MW peak installed capacity	Survey and EPC contractor invoices
	Battery storage system installed	Project documentation	0	2020	Project documentation	900 kWh lithium-ion battery storage	Survey and EPC contractor invoices
	Number of step up/down transformers installed	Project documentation	0	2020	Project documentation	2 x 1 MW step up/down transformers	Survey and EPC contractor invoices
	MV line to distribute power from PV power plant to the RFM Hospital main switchboard constructed and installed		0	2020	Project documentation	750 meters Medium Voltage line	

<b>Activity 1.3:</b> Replacement of energy inefficient lighting, heating and cooling systems	Number of high energy bulbs and fittings replaced with LEDs lamps	Project documentation	0	2020	Project documentation	976 LEDs and fittings, 2,009 LEDs	Survey and EPC contractor invoices
	Old electric heaters replaced with high efficiency heat pumps	Project documentation	0	2020	Project documentation	63 rooms heated with heat high efficiency pumps	Survey and EPC contractor invoices
	Coal boiler replacement with high efficiency heat pumps	Project documentation	0	2020	Project documentation		Survey and EPC contractor invoices

**Output 2: Awareness raised on the benefits of renewable energy technologies and systems**

<b>Activity 2.1</b> Design a functional monitor and reporting system on reduced energy demand, CO2 emissions as well as associated energy cost savings	A baseline of energy consumption prior to the installation of energy efficient appliances and devices and the PV power plant and a baseline of energy costs (electricity bill, coal costs, diesel costs and maintenance of the coal boiler and back-up diesel generator) prior to the installation of energy efficient appliances and devices and the PV power plant established	Project documentation	0	2020	Project documentation	3-5	Project reports
	Indicators for monitoring energy consumption and associated costs and greenhouse gas emission levels selected	Project documentation	0	2020	Project documentation	1-3	Website(s)
	Monitoring system to track and document emission trends, energy demand levels and energy costs at the RFM Hospital designed and implemented	Project documentation	0	2020	Project documentation	2-3	Project reports
	System for monitoring and reporting of data on energy consumption and costs and Greenhouse gas emissions particularly CO2 emissions put in place	Project documentation	0	2020	Project documentation	2-3	Project reports

<b>Activity 2.2:</b> Document results of the pilot on benefits of improved access to clean and renewable	Lessons and good practices from the implementation of the project and the key lessons and experiences captured and documented	Tender documentation	0	2020	Inclusion of local expertise as a requirement in tender documentation		Tender documentation
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<p>energy shared with relevant stakeholders both in the public and private to raise awareness and promote replication of the project and uptake of use of clean renewable energy systems technologies</p>	Media of knowledge sharing to the key stakeholders established	Project documentation	0	2020	Project documentation	1-2 guest lectures making use of case study	Case study materials	
	Knowledge products on the cost-benefits of using renewable energy technologies / systems and efficient appliances and share among public and private sector relevant stakeholders using different multi-media channels produced	Project documentation	0	2020	Project documentation	2-3	Project reports	
	On-the-job and formal training for local professionals and expertise from public and private sectors on use of renewable energy and energy efficient systems by encouraging the contractor to engage local people in the implementation greening activities put in place	Project documentation	0	2020	Project documentation		Project reports	
	A case study and conduct guest lectures at higher education developed	Project documentation	0	2020	Project documentation		Project reports	
	Awareness raised and knowledge shared with local actors in the clean energy sector raised	Project documentation	0	2020	Project documentation		Project reports	
	<b>Activity 2.3</b>							
	Evidence-based lessons, experiences and cost-benefit of the demonstration project documented	Project documentation	0	2020	Project documentation	1	Strategy document	
	Study tours for relevant stakeholders organized	Project documentation	0	2020	Project documentation	1	Strategy document	
	The potential for replication (market assessment) established and a replication strategy developed	Project documentation	0	2020	Project documentation	2	Market survey report	
	Resources for replication of the demonstration project to other hospitals mobilised	Project documentation	0	2020	Project documentation		Draft financial proposals or applications	
Strategy document including budget requirements to implement strategy developed	Project documentation	0	2020	Project documentation	1	Market survey report		

	Web-based innovations and a webpage and various other platforms created for sharing lessons and experiences for sharing policy-briefs and other knowledge products on benefits of using renewable energy	Project documentation on	0	2020	Project documentation	1	Market survey report
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## V. MONITORING AND EVALUATION

In accordance with UNDP's programming policies and procedures, the project will be monitored through the following monitoring and evaluation plans: The project entails an effective and resourced M&E framework that will enable ongoing adaptive management of the project ensuring that lessons are learnt, management decisions are taken into consideration based on relevant and up-to-date information that the appropriate feedback channels are used to integrate new information, and that regular progress reports are available for concerned parties. The Project Results Framework includes SMART indicators for each expected outcome as well as mid-term and end-of-project targets. These indicators along with the key deliverables and benchmarks are to be developed in some more detail and fine-tuned during the inception phase of the project and will be the main tools for assessing project implementation progress and whether project results are being achieved.

The M&E plan will be reviewed and revised as necessary during the project inception workshop to ensure project stakeholders understand their roles and responsibilities vis-à-vis project monitoring and evaluation. Day-to-day project monitoring is the responsibility of the project management unit, but other project partners will have responsibilities to collect specific information to track the indicators. It is the responsibility of the Project Manager to inform the Joint Committee of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely fashion. The Joint Committee will receive periodic reports on progress and will make recommendations concerning the need to revise any aspects of the Results Framework or the M&E plan. Project oversight is the responsibility of the UNDP Task Managers who will review the quality of draft project outputs, provide feedback to the project partners, and establish peer review procedures to ensure adequate quality of scientific and technical outputs and publications.

A Project Inception Workshop will be held within the first 6 weeks months of the project start. Those with assigned roles in the project organization structure, UNDP country office staff and where appropriate/feasible regional technical policy and program advisors as well as other key stakeholders will be invited to participate. An inception report shall be provided at the end of 2 months by the Project Manager thereafter briefs will be provided every 2 months, which will inform the reports to be submitted to UNDP. The project will be monitored through the following:

Within the annual cycle:

- Project Implementation Reports (PIR): The PIR includes the UNDP reporting requirements. The PIR includes, but is not limited to, reporting on the following:
  - Progress made towards the project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative).
  - Project outputs delivered per project outcome (quarterly).
  - Lesson learned/good practice. Work plans and other expenditure reports.
- Quarterly Progress Reports. On a quarterly basis, a quality assessment shall record progress towards the completion of key results.
- A Risk/Issue Log shall be activated in Atlas and updated by the UNDP Project Manager to facilitate tracking and resolution of potential problems or requests for change. Based on the initial risk analysis submitted (see Annex 2 – the Risk Log Framework), the activated risk/issue log shall be regularly updated by reviewing the external environment that may affect the project implementation.
- A Project Lesson-learned log shall be activated and regularly updated to ensure on-going learning and adaptation within the organization, and to facilitate the preparation of the Lessons-learned Report at the end of the project.
- A Monitoring Schedule Plan shall be activated in Atlas and updated to track key management actions/events for management by the UNDP Project Manager.

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Further, a final project assessment shall be undertaken, and a report shall be prepared based on the above reports and shall form part of the final evaluation of the project. This assessment is driven by the Joint Committee and may involve other stakeholders as required. It shall focus on the extent to which progress has been made towards outputs, and that these were aligned to appropriate outcomes. The final (evaluation) report will also provide guidance to replication of the demonstration project to other hospitals in the country.



## Monitoring Plan

In accordance with UNDP's programming policies and procedures, the project will be monitored through the following monitoring and evaluation plans:

Monitoring Activity	Purpose	Frequency	Expected Action	Partners (if joint)	Cost (if any)
Track results progress	Progress data against the results indicators in the RRF will be collected and analysed to assess the progress of the project in achieving the agreed outputs.	Quarterly	Slower than expected progress will be addressed by project management.		See Multi-Work Year plan
Monitor and Manage Risk	Identify specific risks that may threaten achievement of intended results. Identify and monitor risk management actions using a risk log. This includes monitoring measures and plans that may have been required as per UNDP's Social and Environmental Standards. Audits will be conducted in accordance with UNDP's audit policy to manage financial risk.	Quarterly	Risks are identified by project management and actions are taken to manage risk. The risk log is actively maintained to keep track of identified risks and actions taken.		See Multi-Work Year plan
Learn	Knowledge, good practices and lessons will be captured regularly, as well as actively sourced from other projects and partners and integrated back into the project.	Quarterly	Relevant lessons are captured by the project team and used to inform management decisions.		See Multi-Work Year plan
Project Quality Assurance	The quality of the project will be assessed against UNDP's quality standards to identify project strengths and weaknesses and to inform management decision making to improve the project.	Every 6 months	Areas of strength and weakness will be reviewed by project management and used to inform decisions to improve project performance.		See Evaluation Plan
Review and Make Course Corrections	Internal review of data and evidence from all monitoring actions to inform decision making.	Quarterly	Performance data, risks, lessons and quality will be discussed by the Joint Committee and used to make course corrections.		See Multi-Work Year plan. See evaluation plan
Project Report	A progress report will be presented to the Joint Committee and key stakeholders, consisting of progress data showing the results achieved against pre-defined 6-monthly targets at the output level, the project quality rating summary, an updated risk log with mitigation measures, and any evaluation or review reports prepared over the period.	Every 6 months and at the end of the project (final report)			See Multi-Work Year plan
Project Review (Joint Committee)	The project's governance mechanism (i.e., Joint Committee) will hold regular project reviews to assess the performance of the project and review the Multi-Year Work Plan to ensure realistic budgeting over the life of the project. In the project's final year, the Joint Committee shall hold an end-of-project	Frequency as per decisions of the Joint Committee in the form of Technical Working Group Meetings	Any quality concerns or slower than expected progress should be discussed by the Joint Committee and management actions agreed to address the issues identified.		See Multi-Work Year plan

	review to capture lessons learned and discuss opportunities for scaling up and to socialize project results and lessons learned with relevant audiences.						
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**Evaluation Plan<sup>2</sup>**

Evaluation Title	Partners (if joint)	Related Strategic Plan Output	UNDAF/CPD Outcome	Planned Completion Date	Key Evaluation Stakeholders	Cost and Source of Funding
e.g., Mid-Term Evaluation						

<sup>2</sup> Optional, if needed

## VI. MULTI-YEAR WORK PLAN<sup>3</sup>

Expected outputs	Planned activities	Planned budget (Euro)		Responsible Party, Funding Source and Budget description			
		2020		Responsible party	Funding Source	Budget Description	Amount
<b>Activity 1.1:</b> Undertake project preparatory activities	<ul style="list-style-type: none"> <li>- Preparation of final specifications for the equipment and tender documents</li> <li>- Selection of contractors and suppliers of equipment and appliances</li> <li>- Preparation of Social and Environmental Impact and application submission for permit as well as finalization of SES</li> <li>- Processing of electricity power generation and distribution licenses</li> </ul>	€ 77,000		ENEA/UNDP	IMELS	UNDP Technical Advisory 71300 -National Consultant 71600-Travel 75700-Workshops and learning (partner)	€ 77,000
<b>Activity 1.2:</b> Installation of a 1-MW photovoltaic power plant including battery storage and a transmission line connecting the RFM Hospital	<ul style="list-style-type: none"> <li>- Installation of a PV power plant</li> <li>- Installation of a battery storage system</li> <li>- Installation of step up/down transformers</li> <li>- Construction and installation of MV line to distribute power from PV power plant to the RFM Hospital main switchboard</li> </ul>	€ 1,623,000		UNDP/RFM/MNRE/ ENEA/IRENA	IMELS	71200-International consultant 71300-National Consultant 71600-Travel 75700-Workshops and learning (partner) Contractual services (Partner / company)	€ 1,623,000
<b>Activity 1.3:</b> Replacement of energy inefficient lighting, heating and cooling systems	<ul style="list-style-type: none"> <li>- Replacement of high energy bulbs and fittings with LEDs lamps</li> <li>- Replacement of old electric heaters with high efficiency heat pumps</li> <li>- Replacement of coal boiler by high efficiency heat pumps</li> </ul>	€ 220000		RFM/MNRE / ENEA /IRENA	IMELS	Contractual services (Partner / company)	€ 220,000

<sup>3</sup> Changes to a project budget affecting the scope (outputs), completion date, or total estimated project costs require a formal budget revision that must be signed by the Joint Committee. In other cases, the UNDP programme manager alone may sign the revision provided the other signatories have no objection. This procedure may be applied for example when the purpose of the revision is only to re-phase activities among years.

<p><b>Activity 2.1:</b> Design a functional monitoring and reporting system on reduced energy demand, CO2 emissions as well as associated energy cost savings; replication.</p>	<ul style="list-style-type: none"> <li>- Establish a baseline of energy consumption prior to the installation of energy efficient appliances and devices and the PV power plant and a baseline of energy costs (electricity bill, coal costs, diesel costs and maintenance of the coal boiler and back-up diesel generator) prior to the installation of energy efficient appliances and devices and the PV power plant</li> <li>- Selection and compilation of indicators for monitoring energy consumption and associated costs and greenhouse gas emission levels</li> <li>- Design and implementation of a monitoring system to track and document emission trends, energy demand levels and energy costs at the RFM Hospital</li> <li>- Monitoring and reporting of data on energy consumption and costs and Greenhouse gas emissions particularly CO2 emissions</li> </ul>	<p style="text-align: center;"><b>€ 50,000</b></p>	<p style="text-align: center;">RFM/MTEA/MN/REU NDP/ENE/A/RENA</p>	<p style="text-align: center;">IMELS</p>	<p>71200-International consultant 71300-National Consultant 71600-Travel 75700-Workshops and learning (partner) 71400-Contractual services (individual)</p>	<p style="text-align: center;"><b>€ 50,000</b></p>
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<p><b>Activity 2.2:</b> Document results of the pilot on benefits of improved access to clean and renewable energy shared with relevant stakeholders both in the public and private to raise awareness and promote replication of the project and uptake of use of clean renewable energy systems and technologies.</p>	<ul style="list-style-type: none"> <li>- Capturing and documenting lessons and good practices from the implementation of the project and the key lessons and experiences</li> <li>- Devising the best media of knowledge sharing to the key stakeholders</li> <li>- Production of knowledge products on the cost-benefits of using renewable energy technologies / systems and efficient appliances and share among public and private sector relevant stakeholders using different multi-media channels</li> <li>- Provide On-the-job and formal training for local professionals and expertise from public and private sectors on use of renewable energy and energy efficient systems by encouraging the contractor to engage local people in the implementation greening activities</li> <li>- Develop a case study and conduct guest lectures at higher learning institutions</li> <li>- Raise awareness and share knowledge with local actors in the clean energy sector</li> </ul>	<p>€ 50,000</p>	<p>MNRE/MTEA/JUNDP</p>	<p>IMELS</p>	<p>UNDP Technical Advisory 71300-National Consultant 71600-Travel 75700-Workshops and learning (partner) 71400-Contractual services (individual)</p> <p>Communication/ audio visual Printing</p>	<p>€ 50,000</p>
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<p><b>Activity 2.3:</b> Develop a strategy and plan for replicating of this project to other public and private hospitals, government institutions and other service facilities and implement the plan in partnership with the government</p>	<ul style="list-style-type: none"> <li>- Documentation of evidence-based lessons and experiences on the project cost-benefits</li> <li>- Documenting the demonstration project through reports etc.</li> <li>- Create a web presence</li> <li>- Organise study tours for relevant stakeholders</li> <li>- Establishment of the potential for replication (market assessment) and develop a replication strategy</li> <li>- Resource mobilisation for replication of the demonstration project to other hospitals</li> <li>- Use web-based innovations and various other platforms such as study tours to share policy briefs and benefits of using renewable energy relevant stakeholders and policymakers to inform policy incentive measure to stimulate private sector investments into renewable energy systems</li> </ul>	<p>€ 45,000</p>	<p>MNRE/MTEA/UNDP</p>	<p>IMELS</p>	<p>UNDP Technical Advisory 71300-National Consultant 71600-Travel 75700-Workshops and learning (partner) Printing</p>	<p>€ 45,000</p>
<p><b>Monitoring and Evaluation</b></p>	<ul style="list-style-type: none"> <li>- Quarterly reviews and reporting</li> </ul>	<p>€ 10,000</p>	<p>MNRE/MTEA/UNDP</p>	<p>IMELS</p>	<p>UNDP Technical Advisory 71300-National Consultant 71600-Travel 75700-Workshops and learning (partner)</p>	<p>€ 10,000</p>
<p><b>Project Management Mid-term and Terminal Evaluation</b></p>		<p>€ 20,000</p>	<p>UNDP/external</p>	<p>IMELS</p>	<p>71200-International consultant 71300-National Consultant 71600-Travel 75700-Workshops and learning (partner)</p>	<p>€ 20,000</p>

Financial audit									
Project Management & Coordination (PMU) Costs									
Project Manager			€ 35,000	UNDP	IMELS	71400-Contractual services		€ 35,000	
Admin and Finance Officer			€ 25000	UNDP	IMELS	71400-Contractual services		€ 25000	
Implementation support costs			€ 45,000	UNDP	IMELS	DPC - Cost recovery for services		€ 51,974.75	
Sub-total			€ 2,200,000.00					€ 2, 200,000	
General Management Support (8%)							€ 176000		
<b>TOTAL</b>									<b>2,376,000</b>


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## VII. Governance and Management Arrangements

The project will be implemented in accordance with UNDP National Implementation Modality (NIM) with Country Office support policies and procedures. The Ministry of Natural Resources and Energy (MNRE) through the Energy Department will be responsible for delivery of project outputs. The MNRE will also provide technical and administrative support and guidance to the PMU. The Ministry of Tourism and Environmental Affairs will assume the executive role in the project ensuring overall governance support required by the project. The Ministry of Health and/or RFM Hospital will assume the role of the Senior Beneficiary for the project. The RFM staff will be capacitated to maintain the project output system. In line with the Cooperation agreement, UNDP on behalf of the Republic of Italy, Ministry of Environment, Land and Sea (IMELS) will undertake the role of Senior Supplier ensuring that resources are adequately and timely availed to support the project initiatives. As senior supplier, UNDP will ensure that adequate controls are applied in the use of the resources in line with the donor requirements.

**The Joint Committee (JC):** The project flows from Bilateral Memorandum of Agreement between the Kingdom of Eswatini and the Republic of Italy, and the coordination is done concurrently between the two parties. The Joint Committee will be composed of two (2) representatives from the Kingdom of Eswatini, one (1) from the Ministry of Tourism and Environmental Affairs and one (1) from the Ministry of Natural Resources and Energy, and two (2) representatives from the Ministry of Environment, Land and Sea of the Republic of Italy. Chaired by the Ministry of Tourism and Environmental Affairs the JC will provide strategic guidance towards efficient implementation of the project. The JC will also ensure that the project activities are implemented in line with the provisions of the MOU signed between the two governments and national priorities.

**A Technical Working Group (TWG)** of the various key institutions is established to support the PMU with technical guidance. They are responsible for supporting the PMU on its daily functions and make recommendations to the JC for higher level decision making. The TWG will meet in accordance with the TOR and as required to track progress and unlock any blockages to project implementation.

**A Project Management Unit** composed of a Project Manager and a Finance and Administration Assistant and other technical experts will be responsible to run the daily activities of the project. MNRE and UNDP will avail office space for and support the PMU. The PMU will be responsible for the daily operations and delivery of the project ensuring effective and adequate management of the resources. The PMU will further undertake monitoring and reporting on the achievements of the project results to the JC as well as producing quarterly and annual reports to be submitted to UNDP. The MTEA, MNRE and other relevant specialized Ministries, Departments and Agencies (MDAs) will provide technical support services and oversight to the project. ENEA and IRENA will provide specialized technical support on the definition of the technical specifications of the components and works management support during the implementation, final testing of realization and to system operating data collection for tracking benefit flows.

UNDP Finance will provide project assurance support to the project to ensure that the project resources are utilised as per the donor and UNDP operational guidelines. The Assurance role also entails monitoring and ensuring that the project is managed and implemented as per the approved Log-framework.

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## VIII. PROJECT MANAGEMENT

**Cost Efficiency and Effectiveness**



The detailed design stages of this project prior to committing funding by IMELS consisted of a technical (pre-feasibility) study that mapped out the various elements to be included in the demonstration project. Following that, IMELS supported a more detailed study that was concluded during a site visit resulting in the technical specifications of the tender documentation. An open, international competitive tender process will further safeguard effectiveness and cost-efficiencies of resources made available for this demonstration project.

Furthermore, the anticipated involvement of local expertise will not only improve long-term sustainability and replicability of this project, but also contribute to cost efficiencies. Coordination between partners and relevant stakeholders (see sections 3.3 and 3.5) will further improve effectiveness of this project.

The project outcomes have been designed such that they are closely aligned and coordinated with national efforts to promote developmental goals and priorities. This project forms part of the implementation of PARES and complements the sustainable development work that is undertaken by UNDP Eswatini.

**Quality assurance** for both achievement of project results and financial management will be provided by UNDP through among others spot checks, Country Support National Implementation Modality (NIM), Audits as well as Terminal Project Evaluation in accordance with established policies and procedures. UNDP finance will provide project assurance support to ensure that the project resources are utilised as per the donor and UNDP operational guidelines. The Assurance role also entails monitoring if the project is being implemented as per the approved project document logical framework.

UNDP's policies and procedures will be followed for the management of the demonstration project, including the POPP guidelines relating to the conduct of a Technical Working Group to review results and progress. A TWG will be set up, headed by the PS of MTEA. Members will comprise experts from the RFM Hospital Management, the Ministry of Health, MTEA, MNRE (Department of Energy), UNDP and others to be co-opted as appropriate. The TWG will meet quarterly to ensure effective and cost-efficient implementation of the project. Please refer to Annex 3 for the TOR of the TWG.

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## IX. Legal Context

This project forms part of an overall programmatic framework under which several separate associated country level activities will be implemented. When assistance and support services are provided from this Project to the associated country level activities, this document shall be the "Project Document" instrument referred to in: (i) the respective signed SBAs for the specific countries; or (ii) in the [Supplemental Provisions to the Project Document](#) attached to the Project Document in cases where the recipient country has not signed an SBAA with UNDP, attached hereto and forming an integral part hereof. All references in the SBAA to "Executing Agency" shall be deemed to refer to "Implementing Partner."

This project will be implemented in accordance with UNDP's financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

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## X. Risk Management

1. UNDP will support the Ministry of Tourism and Environmental Affairs (MTEA) as the Implementing Partner to comply with the policies, procedures and practices of the United Nations Security Management System (UNSMS.)



2. UNDP will support the Ministry of Tourism and Environmental Affairs (MTEA) as the Implementing Partner to and undertake all reasonable efforts to ensure that none of the [project funds]<sup>4</sup> [UNDP funds received pursuant to the Project Document]<sup>5</sup> are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via [http://www.un.org/sc/committees/1267/aq\\_sanctions\\_list.shtml](http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml). This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.
3. Social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (<http://www.undp.org/ses>) and related Accountability Mechanism (<http://www.undp.org/secu-srm>).
4. UNDP will support the Ministry of Tourism and Environmental Affairs (MTEA) as the Implementing Partner by undertaking the following: (a) conduct project and programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.
5. All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to project sites, relevant personnel, information, and documentation.
6. UNDP will ensure that the following obligations are binding on each responsible party, subcontractor and sub-recipient:
  - a. Consistent with the Article III of the SBAA [*or the Supplemental Provisions to the Project Document*], the responsibility for the safety and security of each responsible party, subcontractor and sub-recipient and its personnel and property, and of UNDP's property in such Responsible Party's, subcontractor's and sub-recipient's custody, rests with such responsible party, subcontractor and sub-recipient. To this end, each responsible party, subcontractor and sub-recipient shall:
    - i. put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
    - ii. assume all risks and liabilities related to such Responsible Party's, subcontractor's and sub-recipient's security, and the full implementation of the security plan.
  - b. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Responsible Party's, subcontractor's and sub-recipient's obligations under this Project Document.
  - c. Each responsible party, subcontractor and sub-recipient will take appropriate steps to prevent misuse of funds, fraud or corruption, by its officials, consultants, subcontractors and sub-recipients in implementing the project or programme or using the UNDP funds. It will ensure that its financial management, anti-corruption and anti-fraud policies are in place and enforced for all funding received from or through UNDP.

<sup>4</sup> To be used where UNDP is the Implementing Partner

<sup>5</sup> To be used where the UN, a UN fund/programme or a specialized agency is the Implementing Partner

- d. The requirements of the following documents, then in force at the time of signature of the Project Document, apply to each responsible party, subcontractor and sub-recipient: (a) UNDP Policy on Fraud and other Corrupt Practices and (b) UNDP Office of Audit and Investigations Investigation Guidelines. Each responsible party, subcontractor and sub-recipient agrees to the requirements of the above documents, which are an integral part of this Project Document and are available online at [www.undp.org](http://www.undp.org).
- e. In the event that an investigation is required, UNDP will conduct investigations relating to any aspect of UNDP programmes and projects. Each responsible party, subcontractor and sub-recipient will provide its full cooperation, including making available personnel, relevant documentation, and granting access to its (and its consultants', subcontractors' and sub-recipients') premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with it to find a solution.
- f. Each responsible party, subcontractor and sub-recipient will promptly inform UNDP as the Implementing Partner in case of any incidence of inappropriate use of funds, or credible allegation of fraud or corruption with due confidentiality.

Where it becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, each responsible party, subcontractor and sub-recipient will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP's Office of Audit and Investigations (OAI). It will provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.

- g. *Choose one of the three following options:*

**Option 1:** UNDP will be entitled to a refund from the responsible party, subcontractor or sub-recipient of any funds provided that have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of this Project Document. Such amount may be deducted by UNDP from any payment due to the responsible party, subcontractor or sub-recipient under this or any other agreement. Recovery of such amount by UNDP shall not diminish or curtail any Responsible Party's, subcontractor's or sub-recipient's obligations under this Project Document.

**Option 2:** Each responsible party, subcontractor or sub-recipient agrees that, where applicable, donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities which are the subject of the Project Document, may seek recourse to such responsible party, subcontractor or sub-recipient for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

**Option 3:** UNDP will be entitled to a refund from the responsible party, subcontractor or sub-recipient of any funds provided that have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the responsible party, subcontractor or sub-recipient under this or any other agreement.

Where such funds have not been refunded to UNDP, the responsible party, subcontractor or sub-recipient agrees that donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities under this Project Document, may seek recourse to such responsible

party, subcontractor or sub-recipient for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

Note: The term "Project Document" as used in this clause shall be deemed to include any relevant subsidiary agreement further to the Project Document, including those with responsible parties, subcontractors and sub-recipients.

- h. Each contract issued by the responsible party, subcontractor or sub-recipient in connection with this Project Document shall include a provision representing that no fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the proposal, have been given, received, or promised in connection with the selection process or in contract execution, and that the recipient of funds from it shall cooperate with any and all investigations and post-payment audits.
- i. Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project or programme, the Government will ensure that the relevant national authorities shall actively investigate the same and take appropriate legal action against all individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP.
- j. Each responsible party, subcontractor and sub-recipient shall ensure that all of its obligations set forth under this section entitled "Risk Management" are passed on to its subcontractors and sub-recipients and that all the clauses under this section entitled "Risk Management Standard Clauses" are adequately reflected, *mutatis mutandis*, in all its sub-contracts or sub-agreements entered into further to this Project Document.



## XI. ANNEXES

### Annex [1]. Social and Environmental Screening Template

#### Project Information

Project Information	
1. Project Title	Greening the Raleigh Fitkin Memorial Hospital demonstration project in Manzini, Eswatini
2. Project Number	
3. Location (Global/Region/Country)	Eswatini

#### Part A. Integrating Overarching Principles to Strengthen Social and Environmental Sustainability

##### QUESTION 1: How Does the Project Integrate the Overarching Principles in order to Strengthen Social and Environmental Sustainability?

###### *Briefly describe in the space below how the Project mainstreams the human-rights based approach*

This Project intends to assist with both the implementation of the 2030 Agenda for sustainable development and the Paris Agreement. Agenda 2030 seeks to realize and protect human rights for all. Agenda 2030 is guided by the purposes and principles of the Charter of the United Nations, including full respect for international law. It is grounded in the Universal Declaration of Human Rights, international human rights treaties, the Millennium Declaration and the 2005 World Summit Outcome Document. It is informed by other instruments such as the Declaration on the Right to Development. Project activities involve actively informing and inviting local stakeholders and citizen participation and dialogue as it concerns accelerating implementation of the 2030 Agenda. Stakeholder engagement intends to increase assurance that marginalized stakeholder groups' including women and youth, are heard and that their needs are accurately understood and translated to Project activities.

###### *Briefly describe in the space below how the Project is likely to improve gender equality and women's empowerment*

The 2030 Agenda seeks to achieve gender equality and women's empowerment. SDG #5 is a dedicated goal on gender equality, entitled "achieve gender equality and empower all women and girls" and calls for the systematic mainstreaming of a gender perspective. The implementation strategies of this agenda will therefore include plans to improve gender equality and women's empowerment. This project responds to the signature solution as formulated in the UNDP Strategic Plan 2018-2021: # 5. Close the energy gap. Activities undertaken will be on a gender-neutral basis and henceforth touch on signature solution # 6. Strengthen gender equality and the empowerment of women and girls.

###### *Briefly describe in the space below how the Project mainstreams environmental sustainability*

The project has two main components. Firstly, to demonstrate the application of energy efficiency and clean energy generation for the main hospital in Eswatini. Secondly, the nation-wide replication of this demonstration project, including a strategy for resource mobilization assisting implementation of such nation-wide strategy. Maintaining environmental sustainability will be closely monitored and steered throughout the life of the Project not only by UNDP, but

also by the Italian Ministry of Environment, Land and Sea (IMELS) who has provided all committed funding to the Project. IMELS will focus as part of their monitoring on CO2 emission reductions achieved by the demonstration project.

**Part B. Identifying and Managing Social and Environmental Risks**

<b>QUESTION 2: What are the Potential Social and Environmental Risks?</b> <i>Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any “Yes” responses). If no risks have been identified in Attachment 1 then note “No Risks Identified” and skip to Question 4 and Select “Low Risk”. Questions 5 and 6 not required for Low Risk Projects.</i>	<b>QUESTION 3: What is the level of significance of the potential social and environmental risks?</b> <i>Note: Respond to Questions 4 and 5 below before proceeding to Question 6</i>	<b>QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?</b>			
<b>Risk Description</b>	<b>Impact and Probability (1-5)</b>  I = P =	<b>Significance (Low, Moderate, High)</b>	<b>Comments</b>	<b>Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.</b>	
No risks identified	<b>QUESTION 4: What is the overall Project risk categorization?</b>				
Select one (see SESP for guidance)					
<b>Comments</b>					
Low Risk <input checked="" type="checkbox"/>					
The Project at this stage presents low social and environmental risks.					
Moderate Risk <input type="checkbox"/>					
High Risk <input type="checkbox"/>					

QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are relevant?		Comments
Check all that apply		
<i>Principle 1: Human Rights</i>	<input type="checkbox"/>	
<i>Principle 2: Gender Equality and Women's Empowerment</i>	<input type="checkbox"/>	
<i>1. Biodiversity Conservation and Natural Resource Management</i>	<input type="checkbox"/>	
<i>2. Climate Change Mitigation and Adaptation</i>	<input type="checkbox"/>	
<i>3. Community Health, Safety and Working Conditions</i>	<input type="checkbox"/>	
<i>4. Cultural Heritage</i>	<input type="checkbox"/>	
<i>5. Displacement and Resettlement</i>	<input type="checkbox"/>	
<i>6. Indigenous Peoples</i>	<input type="checkbox"/>	
<i>7. Pollution Prevention and Resource Efficiency</i>	<input type="checkbox"/>	




Final Sign Off

Signature	Date	Description
QA Assessor		UNDP staff member responsible for the Project, typically a UNDP Programme Officer. Final signature confirms they have "checked" to ensure that the SESP is adequately conducted.
QA Approver		UNDP senior manager, typically the UNDP Deputy Country Director (DCD), Country Director (CD), Deputy Resident Representative (DRR), or Resident Representative (RR). The QA Approver cannot also be the QA Assessor. Final signature confirms they have "cleared" the SESP prior to submittal to the PAC.
PAC Chair		UNDP chair of the PAC. In some cases, PAC Chair may also be the QA Approver. Final signature confirms that the SESP was considered as part of the project appraisal and considered in recommendations of the PAC.




SESP Attachment 1. Social and Environmental Risk Screening Checklist

Checklist Potential Social and Environmental Risks		Answer (Yes/No)
<b>Principles 1: Human Rights</b>		
1.	Could the Project lead to adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?	No
2.	Is there a likelihood that the Project would have inequitable or discriminatory adverse impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups? <sup>6</sup>	No
3.	Could the Project potentially restrict availability, quality of and access to resources or basic services, in particular to marginalized individuals or groups?	No
4.	Is there a likelihood that the Project would exclude any potentially affected stakeholders, in particular marginalized groups, from fully participating in decisions that may affect them?	No
5.	Is there a risk that duty-bearers do not have the capacity to meet their obligations in the Project?	No
6.	Is there a risk that rights-holders do not have the capacity to claim their rights?	No
7.	Have local communities or individuals, given the opportunity, raised human rights concerns regarding the Project during the stakeholder engagement process?	No
8.	Is there a risk that the Project would exacerbate conflicts among and/or the risk of violence to project-affected communities and individuals?	No
<b>Principle 2: Gender Equality and Women's Empowerment</b>		No
1.	Is there a likelihood that the proposed Project would have adverse impacts on gender equality and/or the situation of women and girls?	No
2.	Would the Project potentially reproduce discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	No
3.	Have women's groups/leaders raised gender equality concerns regarding the Project during the stakeholder engagement process and has this been included in the overall Project proposal and in the risk assessment?	No
4.	Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services? <i>For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well being</i>	No
<b>Principle 3: Environmental Sustainability:</b> Screening questions regarding environmental risks are encompassed by the specific Standard-related questions below		
<b>Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management</b>		
1.1	Would the Project potentially cause adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services?  <i>For example, through habitat loss, conversion or degradation, fragmentation, hydrological changes</i>	No

<sup>6</sup> Prohibited grounds of discrimination include race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. References to "women and men" or similar is understood to include women and men, boys and girls, and other groups discriminated against based on their gender identities, such as transgender people and transsexuals.

1.2	Are any Project activities proposed within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?	No
1.3	Does the Project involve changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods? (Note: if restrictions and/or limitations of access to lands would apply, refer to Standard 5)	No
1.4	Would Project activities pose risks to endangered species?	No
1.5	Would the Project pose a risk of introducing invasive alien species?	No
1.6	Does the Project involve harvesting of natural forests, plantation development, or reforestation?	No
1.7	Does the Project involve the production and/or harvesting of fish populations or other aquatic species?	No
1.8	Does the Project involve significant extraction, diversion or containment of surface or ground water? <i>For example, construction of dams, reservoirs, river basin developments, groundwater extraction</i>	No
1.9	Does the Project involve utilization of genetic resources? (e.g. collection and/or harvesting, commercial development)	No
1.10	Would the Project generate potential adverse transboundary or global environmental concerns?	No
1.11	Would the Project result in secondary or consequential development activities which could lead to adverse social and environmental effects, or would it generate cumulative impacts with other known existing or planned activities in the area? <i>For example, a new road through forested lands will generate direct environmental and social impacts (e.g. felling of trees, earthworks, potential relocation of inhabitants). The new road may also facilitate encroachment on lands by illegal settlers or generate unplanned commercial development along the route, potentially in sensitive areas. These are indirect, secondary, or induced impacts that need to be considered. Also, if similar developments in the same forested area are planned, then cumulative impacts of multiple activities (even if not part of the same Project) need to be considered.</i>	No
<b>Standard 2: Climate Change Mitigation and Adaptation</b>		
2.1	Will the proposed Project result in significant <sup>7</sup> greenhouse gas emissions or may exacerbate climate change?	No
2.2	Would the potential outcomes of the Project be sensitive or vulnerable to potential impacts of climate change?	No
2.3	Is the proposed Project likely to directly or indirectly increase social and environmental vulnerability to climate change now or in the future (also known as maladaptive practices)? <i>For example, changes to land use planning may encourage further development of floodplains, potentially increasing the population's vulnerability to climate change, specifically flooding</i>	No
<b>Standard 3: Community Health, Safety and Working Conditions</b>		
3.1	Would elements of Project construction, operation, or decommissioning pose potential safety risks to local communities?	No
3.2	Would the Project pose potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	No
3.3	Does the Project involve large-scale infrastructure development (e.g. dams, roads, buildings)?	No
3.4	Would failure of structural elements of the Project pose risks to communities? (e.g. collapse of buildings or infrastructure)	No
3.5	Would the proposed Project be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?	No
3.6	Would the Project result in potential increased health risks (e.g. from water-borne or other vector-borne diseases or communicable infections such as HIV/AIDS)?	No
3.7	Does the Project pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or	No

<sup>7</sup> In regards to CO<sub>2</sub>, 'significant emissions' corresponds generally to more than 25,000 tons per year (from both direct and indirect sources). [The Guidance Note on Climate Change Mitigation and Adaptation provides additional information on GHG emissions.]

	decommissioning?	
3.8	Does the Project involve support for employment or livelihoods that may fail to comply with national and international labor standards (i.e. principles and standards of ILO fundamental conventions)?	No
3.9	Does the Project engage security personnel that may pose a potential risk to health and safety of communities and/or individuals (e.g. due to a lack of adequate training or accountability)?	No
<b>Standard 4: Cultural Heritage</b>		
4.1	Will the proposed Project result in interventions that would potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: Projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	No
4.2	Does the Project propose utilizing tangible and/or intangible forms of cultural heritage for commercial or other purposes?	No
<b>Standard 5: Displacement and Resettlement</b>		
5.1	Would the Project potentially involve temporary or permanent and full or partial physical displacement?	No
5.2	Would the Project possibly result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	No
5.3	Is there a risk that the Project would lead to forced evictions? <sup>8</sup>	No
5.4	Would the proposed Project possibly affect land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources?	No
<b>Standard 6: Indigenous Peoples</b>		
6.1	Are indigenous peoples present in the Project area (including Project area of influence)?	No
6.2	Is it likely that the Project or portions of the Project will be located on lands and territories claimed by indigenous peoples?	No
6.3	Would the proposed Project potentially affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples (regardless of whether indigenous peoples possess the legal titles to such areas, whether the Project is located within or outside of the lands and territories inhabited by the affected peoples, or whether the indigenous peoples are recognized as indigenous peoples by the country in question)?  <i>If the answer to the screening question 6.3 is "yes" the potential risk impacts are considered potentially severe and/or critical and the Project would be categorized as either Moderate or High Risk.</i>	No
6.4	Has there been an absence of culturally appropriate consultations carried out with the objective of achieving FPIC on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	No
6.5	Does the proposed Project involve the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	No
6.6	Is there a potential for forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources?	No
6.7	Would the Project adversely affect the development priorities of indigenous peoples as defined by them?	No
6.8	Would the Project potentially affect the physical and cultural survival of indigenous peoples?	No
6.9	Would the Project potentially affect the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	No

<sup>8</sup> Forced evictions include acts and/or omissions involving the coerced or involuntary displacement of individuals, groups, or communities from homes and/or lands and common property resources that were occupied or depended upon, thus eliminating the ability of an individual, group, or community to reside or work in a particular dwelling, residence, or location without the provision of, and access to, appropriate forms of legal or other protections.

Standard 7: Pollution Prevention and Resource Efficiency		
7.1	Would the Project potentially result in 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?	No
7.2	Would the proposed Project potentially result in the generation of waste (both hazardous and non-hazardous)?	No
7.3	Will the proposed Project potentially involve the manufacture, trade, release, and/or use of hazardous chemicals and/or materials? Does the Project propose use of chemicals or materials subject to international bans or phase-outs?  <i>For example, DDT, PCBs and other chemicals listed in international conventions such as the Stockholm Conventions on Persistent Organic Pollutants or the Montreal Protocol</i>	No
7.4	Will the proposed Project involve the application of pesticides that may have a negative effect on the environment or human health?	No
7.5	Does the Project include activities that require significant consumption of raw materials, energy, and/or water?	No




**Annex 2: Risk Log Framework**

<b>Project Title:</b> Greening the Raleigh Fitkin Memorial Hospital demonstration project in Manzini, Eswatini	<b>Award ID:</b>
	<b>Date:</b> 7 September 2019

#	Description	Date Identified	Type	Impact Probability &	Counter measures / Mngt response	Owner	Submitted, updated by	Last Update	Status
1	The technical specifications for the tender documents are based on similar projects in Italy.	Sept 2019	Financial (Economic funding)	This poses a risk as price levels in Eswatini could be higher for the same hardware delivered, installed and commissioned compared to Italy.  P = 5; I = 5	<ol style="list-style-type: none"> <li>An international competitive tender should result in the most cost-efficient EPC contractor being awarded the contract.</li> <li>RINA Consulting who prepared the technical specs and the budget, have indicated that price levels in Italy and Eswatini would be similar.</li> <li>The Africa Centre for Climate Sustainable Development (UNDP-Rome) can be contacted for additional</li> </ol>	Project Manager	Project Manager		



2	Active involvement of local expertise might be minimal due to the absence of a vibrant energy efficiency and clean energy sector in Eswatini	Sept 2019	Organizational (Institutional/Execution Capacity)	This poses a risk as it reduces the sense of ownership of the project and the replication of the demonstration project in future.  P = 3; I = 3	financial support should this be required.  The inclusion of local expertise in the tender proposals is encouraged.  On-the-job training and other awareness and knowledge creation activities designed as part of the project.	Project Manager	Project Manager	-	-
3	Engaging private sector will depend on available commercial investments and/or donor or government funding.	Sept 2019	Financial (Economic factors, Organizational (Institutional/Execution Capacity)	Lack of interest of the private sector will limit implementation capacity required for the replication phase.  P = 3; I = 3	Ensuring that local investment conditions are understood and acceptable for private sector engagement.	Project Manager	Project Manager	-	-

4	Lack of coordination between MTEA, Ministry of Health, the RFM Hospital, Department of Energy, IMELS, UNDP and other relevant stakeholders	Sept 2019	Strategic (Programme Alignment, UN coordination) Organizational (Institutional/Execution Capacity)	Operations could be delayed and carried out inefficiently resulting in higher costs  P = 2; I = 4	A Joint Committee has been established as well as a Project Steering Committee in which all relevant stakeholders have a seat. Meetings are scheduled for every 2 months.	Project Manager	Project Manager	-	-
6	The initiative	Sept 2019	Financial	This poses a risk as	1. A strategy for	Project	Project	-	-

<p>does not mobilise enough resources to replicate the demonstration project nationwide</p>	<p>(Co-financing difficulties, Funding)</p>	<p>the lack of resources for replication will result in limited to no replication of the demonstration project.</p> <p>P = 4 I = 5</p>	<p>replication, including resource mobilisation is included as an activity of this project.</p> <p>2. Strong emphasis on outreach and partnerships building of the initiative with all stakeholders right from the start.</p>	<p>Manager</p>	<p>Manager</p>	<p>Manager</p>
<p>In all likelihood there will be other risks not identified yet but emerging once project implementation commences. The Project Manager will identify these risks and design and implement counter measures to minimise or nullify them. As and when these new risks emerge, they will be presented to the Project Steering Committee/Joint Committee and administratively entered into Atlas as appropriate.</p>						





### **ANNEX 3: PROJECT STEERING COMMITTEE (TWG)**

The Project Steering Committee is responsible for making by consensus, management decisions when guidance is required by the Project Manager, including recommendation for UNDP/Implementing Partner approval of project plans and revisions. In order to ensure UNDP's ultimate accountability, Joint Committee decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. In case a consensus cannot be reached within the Board, final decision shall rest with the UNDP Country Director. The terms of reference for the Joint Committee are contained in the Annex. The Joint Committee is comprised of the following individuals:

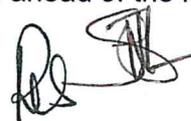
The members of the TWG will comprise of experts from the RFM Hospital Management, the Ministry of Health, Ministry of Tourism and Environmental Affairs, Department of Energy, Donor Representative, UNDP, Local Government representatives, Private Sector representative, NGO representative, Community Representative, and the Project Manager (Secretariat)

#### **TOR for the Technical Working Group (TWG)**

These Terms of Reference are established to provide organizational and procedural guidance for the Project Steering Committee (TWG). The Terms of Reference can be reviewed and revised when the TWG deems it necessary.

#### **A. Role and Function of the TWG**

1. The TWG provides overall leadership, guidance and direction of the project.
2. Specifically, the TWG:
  - a) Makes all final decisions regarding the project activities financed or to be financed. Further, approval of the Project Workplan and budget respectively and any changes thereto, in accordance with UNDP guidelines;
  - b) Reviews the concept notes, project documents and other documentation pertaining to activities financed or to be financed by the project;
  - c) Ensures conformity and quality of the concept notes, project documents, project reports and other documentation pertaining to activities financed or to be financed by the project;
  - d) Monitors the progress and tracks delivery of activities financed by the project;
  - e) Commissions, as needed, the undertaking of additional monitoring and evaluation of project activities, in accordance with UNDP's Financial Regulations and Rules, policies and procedures and UNDP's evaluation policy;
  - f) Will continuously make efforts to improve the visibility of the project; and
  - g) Will consider any other business brought before the TWG by one of its members.
3. The TWG will establish its own Rules of Procedure. All decisions of the TWG shall be made on the principle of consensus. However, if consensus cannot be reached on a given matter, and all efforts are exhausted, voting will be considered. In the event of a tie, the Chairperson will have an additional casting vote.
4. Frequency of TWG meetings
  - a. The TWG will meet every 2 months to ensure smooth and cost-efficient implementation of the project
  - b. Additional meetings based on the project requirements may be convened at the discretion of the TWG members.
  - c. The agenda for meetings of the TWG and all supporting documentation will be prepared and disseminated on a timely basis and at least two weeks ahead of the meeting.



- d. The agenda, proceedings and all decisions of the TWG and its meetings will be duly recorded. Minutes of the TWG meetings will be prepared within two weeks following the TWG meeting and filed appropriately.

The TWG will be supported in its role and functions by the Project Manager who will prepare briefing papers and progress reports and provides all the necessary information and evidence the TWG needs to provide informed advice.

More specifically the Project Manager will:

- a) Set a date, prepare the agenda and all supporting documentation for meetings of the TWG and disseminate these to all participants of the TWG latest two weeks before the meeting date;
- b) Prepare and circulate the minutes of all meetings of the TWG for electronic review and approval by the TWG members;
- c) Monitor follow-up and implementation of decisions of the TWG; and
- d) Report on the overall financial and operational status of the project at each regular meeting of the TWG.
- e) Costs and Financial Requirements: Direct administrative costs such as those directly incurred by the functions and activities of the TWG will be charged to the project.

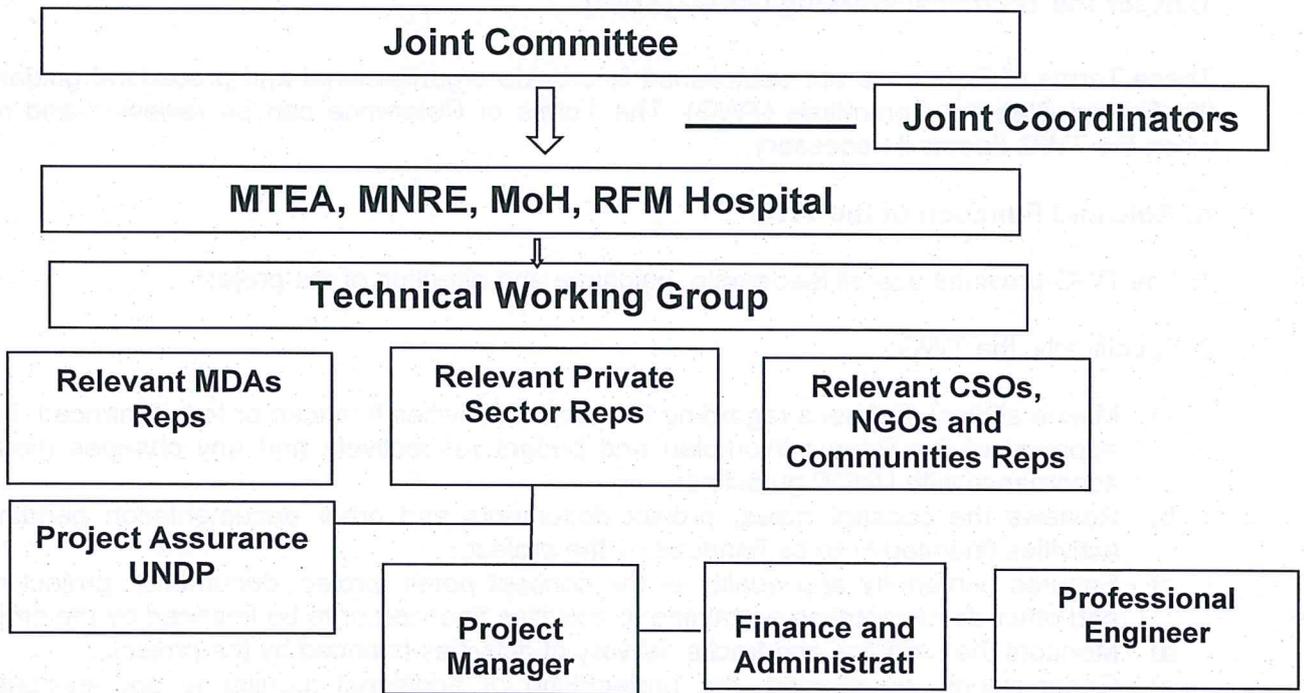
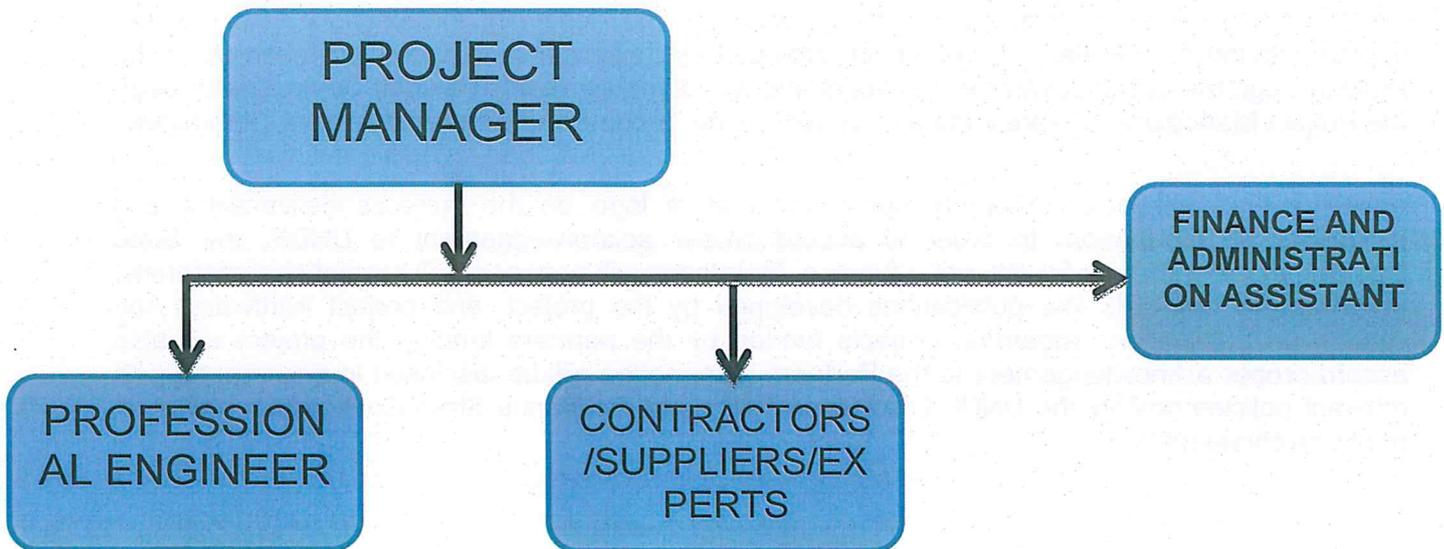


Figure 2: Joint Committee, TWG and PMU structure

*[Handwritten signatures]*

#### Annex 4: The Project Management Unit (PMU)

The Project Management Unit shall be composed of a Project Manager, a Finance and Administration Assistant, Professional Engineer and other technical experts be responsible to run the daily activities of the project. The Proposed Structure will be as follows:



- **The Project Manager** shall be responsible to run the daily activities of the project including project Management and oversight from inception, implementation and commissioning. The Project Manager shall be responsible with the day to day coordination of the project including amongst many reporting, licensing, reporting, stakeholder engagement, etc. The Project Manager shall also provide oversight after commissioning of the project to ensure institutional memory and sustainability of the project and provide technical inputs and advisory services for the project; The Project Manager will assume the duties as described in the Project document. It is against this background that the Ministry will second an officer to assume the Project Manager Responsibility. The officer will be reimbursed according to Government Orders. This secondment will reduce the budget allocation for the project manager.
- **The Professional Engineer**, preferably an Electrical Engineer, shall be responsible for ensuring that all works are carried in accordance to the technical designs and specification of the project. The Professional engineer shall provide technical inputs, advisory services for the project, clearance of works done. The Professional Engineer shall NOT be on full time basis.

The Project Manager will support the TWG by preparing briefing papers and progress reports and provides all the necessary information necessary for its decision.

More specifically the Project Manager will:

- Set a date, prepare the agenda and all supporting documentation for meetings of the TWG and disseminate these to all participants of the TWG latest two weeks before a meeting date;
- Prepare and circulate the minutes of all meetings of the TWG for review and approval by the TWG members;
- Monitor follow-up and implementation of decisions of the TWG; and
- Report on the overall financial and operational status of the project during meetings of the TWG.

The Project Assurance role will be provided by the UNDP Country Office, under the supervision of the Country Resident Representative.

Governance role for project target groups: The project governance arrangements will have Project Site Committees made up of States Government, Local Government officers, private sector, NGOs; CBOs representatives to provide guidance to the design of interventions and oversee implementation of activities. The guidance provided by these committees will be taken up to the PMU through the Local Government Officers and will ultimately reach the Joint Committee through the Project Manager and representatives of such target groups who sit within the Joint Committee.

Agreement on intellectual property rights and use of logo on the project's deliverables and disclosure of information: In order to accord proper acknowledgement to UNDP, the State Government and Donors for providing funding, their logos will appear on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications regarding projects funded by the partners funding the project will also accord proper acknowledgement to the Partners. Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy and the Benue State Government policy on public involvement.

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## **Annex 5: Terms of Reference for the Project Manager**

**Duty station:** Eswatini

**Duration:** 1 year, estimated starting date: April 2020

**Contract:** Secondment from Government

The Project Manager shall provide technical leadership, guidance and advisories as well as day-to-day management of the project. The Project Manager will ensure that the project is managed in a transparent and effective manner, and that it meets its overall goal of improving access to affordable clean energy, energy efficiency and use of low carbon renewable energy technologies and raise awareness on the benefits of using clean renewable energy sources and use of energy efficient systems. The Project Manager will coordinate, plan and provide overall supervision of implementation of the 'Greening the RFM Hospital demonstration project, including adherence to licensing requirements. S/he will contribute to, guide and oversee the project inception, implementation, commissioning, monitoring and reporting in accordance to Government of Eswatini and UNDP procedures and guidelines. The Project Manager will also provide oversight after commissioning of the project to ensure institutional memory and sustainability of the project, and provide technical inputs and advisory services for the project.

### **Duties and Responsibilities**

#### **Project Management: Inception, Implementation and Closure**

- Oversee and manage project implementation, monitor work progress, and ensure timely delivery of outputs;
- Prepare work plans and progress quarterly reports for the Implementing partners;
- Oversee the project start-up preparatory arrangements, including the preparation of final specifications for the equipment and tender documents, selection of contractors and suppliers of equipment and appliances, preparation of Social and Environmental Impact Assessment and application submission for permit as well as finalization of SES and the processing of electricity power generation and distribution licenses.
- Facilitate meetings of the Project Steering Committee (PSC) and make project technical and financial project progress reports, budgets and any other presentations on the project as may be requested by the PSC;
- Coordinate and supervise the work of all project staff and consultants working for the project.
- Provide leadership for content and quality control of project results
- Provide financial and budgetary oversight for the funds;
- Oversee the knowledge extraction, analysis, documentation, codification of results/lessons learned from the demonstration pilot;
- Provide technical expertise on the content of knowledge products through the analysis of data, lessons and experiences from the demonstration pilot;
- Document evidence-based lessons and experiences on the project lessons and cost-benefits of the demonstration pilot including production of policy briefs;
- Ensure effective replication of the project lessons and best practices by organising study tours for relevant stakeholders;
- Work closely with the Professional Engineer to clear milestones achieved as per the project work plan.
- Oversee project technical and financial closure;



## Annex 6: TERMS OF REFERENCE FOR THE PROFESSIONAL ENGINEERING SERVICES

The Professional Engineer, preferably an Electrical Engineer, shall be responsible for ensuring that all works are carried in accordance to the technical designs and specification of the project. The Professional engineer shall provide technical inputs, advisory services for the project, clearance of works done.

### Provision of technical inputs and advisory services

- Provide specialist engineering support during design, construction and commissioning
- Ensure that factory and site acceptance tests for electromechanical equipment (listed below) are conducted, and all necessary documentation and / or certificates are availed:
  - Solar panels
  - Inverters
  - Insulators
  - Breakers
  - Power cables
  - Power transformers
  - Instrument transformers
  - Protection, control and automation panels
  - Earthing system
  - Energy efficiency equipment, such as Lighting (LED), water heaters,
- Provide guidance and advisory engineering services on testing, approval and certification of installations.
- Work closely with the Project Manager and Implementing Partners in the selection, recruitment and supervision of consultants and companies providing technical services to the project
- Provide technical inputs and guidance on all technical aspects of the project to ensure high quality delivery of project results.
- Provide expert advisory services to project partners and service providers on all technical aspects of the project to ensure efficient delivery of project results.
- Guide the quality assurance of all technical, administrative and financial services to enhance project delivery quality
- Ensure takeover documents are ready at the end of the project including operating and maintenance manuals, and as built drawings.
- Work with the Project Manager to prepare progress reports and project close out reports and completion certificates.



## **Annex 7: Terms of reference for Administrative and Finance Officer**

The Administrative and Finance Officer under the overall supervision of the Project Manager will provide administrative support, finance and procurement support, as well as support to knowledge management and sharing.

### **Administrative responsibilities**

- Perform administrative functions in support of effective and efficient project implementation
- Maintain work plans and budgets as well as prepare annual project procurement plans
- Manage the procurement of procedures in full compliance with UNDP policies and procedures
- Oversee all official travel related requests and ensure compliance to UNDP policies and procedures on travel
- Manage correspondence flows, ensuring prioritization, confidentiality and effective flow-up on project related issues
- Drafting routine correspondences and record keeping

### **Finance control and Management**

- Standardise the finance and accounting systems of the project while maintaining compatibility with government and UNDP financial accounting procedures.
- Prepare project budgets, financial plans and assist in the preparation of the quarterly and annual work plans
- Comply and verify budget and accounting data by researching files, calculating costs, and estimating anticipated expenditures from readily available information sources.
- Prepare status reports, progress reports and other financial reports.
- Process all types of payment requests for settlement purposes including quarterly advances to the partners upon joint review.
- Prepare periodic accounting records by recording receipts, disbursements (ledgers, cash books, vouchers, etc.) and reconciling data for recurring or financial special reports and assist in preparation of annual procurement plans.
- Ensure proper receipting of goods and services and establishment of accruals
- Ensure proper control of the supporting documentation and payments according to the procedures
- Undertake project financial closure formalities including submission of terminal reports, transfer and disposal of equipment, processing of semi-final revisions, and support professional staff in preparing the terminal assessment reports.
- Assist in the timely issuance of contracts and assurance of other eligible entitlements of the project personnel, experts, and consultants by preparing annual recruitment plans.

### **Support to Knowledge Management and Sharing**

- Synthesis lessons learnt and best practises in operational processes and assist in capturing lessons from technical project work
- Ensure project contribution to knowledge networks and community of practice in renewable energy and use efficiency

### **Qualifications and competencies**

- An appropriate qualification in accounting, book-keeping, administration, office management.
- At least 3 years' experience in management and administration of multilateral funded projects.
- Demonstrable experience and familiarity with administration of funds using UN/DP and government accounting procedures.
- Excellent spoken and written English, including report-writing and communication skills.

