NS-226 - Rural Electrification with Renewable Energy in The Gambia

Gambia

NAMA Seeking Support for Implementation

	A Overview
A.1 Party	Gambia
A.2 Title of Mitigation Action	Rural Electrification with Renewable Energy in The Gambia
A.3 Description of mitigation action	With a national electrification rate of an estimated 40 per cent and with certain areas having an electrification rate as low as 6 per cent, the time is ripe in The Gambia for the Rural Electrification with Renewable Energy (RE) Nationally Appropriation Mitigation Action (NAMA). A number of building blocks have already been put in place in the country. The 2013 Renewable Energy Act provides the framework for both on and off-grid renewable energy tariffs and net metering, as well as establishing a national RE Fund. There has been development of pilot renewable energy projects as well as diesel powered multi-function platforms, which provide energy access for economic activities in rural areas. The NAMA has four key objectives which are: (i)Increase the level of renewable energy for electricity and contribute to the national long-term target of increasing the share of renewable energy within the power generation sector. (ii)Reduce greenhouse gas emissions in the power generation sector. (iii)Increase the rural population's access to sustainable electricity. (iv)Encourage an increase in rural income generation, and improve rural livelihoods. These objectives will be accomplished through a number of activities, divided into Phase 1 and Phase 2. Phase 1 activities will include the establishment of two types of ventures which will connect un-electrified rural communities: RE Community Energy Centres (RE-CEC) and RE Micro-Grids (RE-MGs). Phase 2 ventures will comprise RE systems which will displace thermal generation at existing regional grids (referred to as RE Displacement Systems – RE-DIS) and RE independent power producers (RE-IPPs). Both RE-CECs and RE-MGs will have as a core design component a rural productivity zone (RPZ), where community members will be provided energy access which can be used to start up small businesses; the RPZ will also provide energy to a

limited number of public buildings. The key difference between the RE-CEC and RE-MG ventures is the manner of distribution of electricity to households: RE-CECs provide electricity through rechargeable batteries, while RE-MGs provide individual household connections. Approximately 50 households will receive electricity access from each of the eight proposed RE-CEC ventures and the eight RE-MG ventures.

The business model applied for both venture types will be a public-private partnership (PPP), in which a public entity owns the RE system but a private sector company manages and maintains the system. In addition to the implementation of the ventures, on-going capacity-building at all levels will occur.

Regulations and policies will be updated, training sessions will be held and awareness will be raised.
Phase 2 will shift activities to a larger scale private sector model. Ventures will include six RE-DIS, of various capacities, and a seven megawatt RE-IPP.

The activities of the NAMA will be paid for via both international and national finance. At the national level, finance will come from the national budget, cost reduction measures and consumer payment schemes. Finance will be provided through mechanisms such as direct investment grants, the RE Fund and a loan facility.

The NAMA will be governed by a multi-stakeholder approval committee and coordinated by the Coordinating Authority. Technical advice will be provided by an expert group and a trustee will manage the financial flows.

The baseline scenario for this NAMA consists of two components, a GHG baseline and a sustainable development (SD) baseline. Setting the baseline scenario in this way allows all effects to be properly assessed and quantified through the monitoring activities described in the Measurement, Reporting and Verification (MRV) system. In the MRV, the UN Framework Convention on Climate Change's (UNFCCC) "Small-scale Methodology: AMS-I.L Electrification of rural communities using renewable energy, Version 03.0" will be used to monitor GHG emission reductions.

A.4 Sector

- [X] Energy supply
- [ ] Residential and Commercial buildings
- [ ] Agriculture
- [ ] Waste management
- [ ] Transport and its Infrastructure
- [ ] Industry
- [ ] Forestry
- [ ] Other

A.5 Technology

- [ ] Bioenergy
- [ ] Energy Efficiency
- [ ] Hydropower
- [ ] Wind energy
- [ ] Cleaner Fuels
- [ ] Geothermal energy
- [X] Solar energy
- [ ] Ocean energy
- [ ] Low till / No till

A.6 Type of action	☐ Carbon Capture and Storage ☐ Land fill gas collection ☐ Other ☒ National/ Sectoral goal ☐ Strategy ☐ National/Sectoral policy or program ☐ Project: Investment in machinery ☐ Project: Investment in infrastructure ☐ Project: Other ☐ Other
A.7 Greenhouse gases covered by the action	☒ CO2 ☐ CH4 ☐ N2O ☐ HFCs ☐ PFCs ☐ SF6 ☐ Other

B National Implementing Entity

B.1.0 Name	Ministry of Environment, Climate Change, Water, Forestry and Wildlife
B.1.1 Contact Person 1	Bubacar Zaidi Jallow
B.1.2 Address	1st Floor Giepa House, Kairaba Avenue, KMC
B.1.3 Phone	220-3653113
B.1.4 Email	buazj@gmail.com
B.1.5 Contact Person 2	Ousman Sowe
B.1.6 Address	
B.1.7 Phone	220 -9966345
B.1.8 Email	sowe312@gmail.com
B.1.9 Contact Person 3	
B.1.10 Address	
B.1.11 Phone	
B.1.12 Email	
B.1.13 Comments	

C Expected timeframe for the implementation of the mitigation action

C.1	Number of years for completion	15
C.2	Expected start year of implementation	2015

D Currency

D.1	Used Currency	AED Conversion to USD: 1

E Cost

E.1.1 Estimated full cost of implementation	23132000
E.1.2 Comments on full cost of implementation	The estimated full cost is for the implementation of Phase 1. The full cost of implementation include extensive capacity development support and capital investment for interventions A and B. The NAMA will be financed through national and international public funds (grants and loans) and private sector contributions and consumer payments.
E.2.1 Estimated incremental cost of implementation	
E.2.2 Comments on estimated incremental cost of implementation	

F Support required for the implementation the mitigation action

F.1.1 Amount of Financial support	9861000
F.1.2 Type of required Financial support	[X] Grant [ ] Loan (sovereign) [ ] Loan (Private) [ ] Concessional loan [ ] Guarantee [ ] Equity [ ] Carbon finance [ ] Other
F.1.3 Comments on Financial support	It is expected that international support in the form of grants will be provided for the implementation of Phase 1 of the NAMA. The international contribution is expected to be US$ 9.861 million
F.2.1 Amount of Technological support	
F.2.2 Comments on Technological support	Technical support is included in the capacity development cost.
F.3.1 Amount of capacity building support	1569000
F.3.2 Type of required capacity building support	[X] Individual level [X] Institutional level [ ] Systemic level [ ] Other
F.3.3 Comments on Capacity Building support	The CapDev programme for implementation will support: (i) implementing a NAMA working network and processes (technical and financial project cycle), including staff training; (ii) implementing NAMA related regulations and designing the contractual conditions; (iii) preparing NAMA project documentation (application forms, call and tender documents, pro-curement rules, monitoring, evaluation and reporting forms, etc.);
F.4 Financial support for implementation required	[ ]
F.5 Technological support for implementation required	[ ]
F.6 Capacity Building support for implementation required	[ ]

G Estimated emission reductions

G.1 Amount	12000
G.2 Unit	MtCO2e
G.3 Additional imformation (e.g. if available, information on the methodological approach followed)	The baseline scenario must take into consideration the issue of suppressed demand. To take account of suppressed demand, the baseline may include a scenario where future anthropogenic emissions by sources are projected to rise above current levels, due to the specific circumstances of the host party (UNFCCC, 2012). This principle can be specifically applied to the methodology AMS-I.L: “A suppressed demand situation is applicable when a minimum service level12 to meet basic human needs13 was unavailable to the end user of the service prior to the implementation of the

project activity. Hence, these guidelines are applicable when basic human needs were not met. For example, in the pre-project scenario, households may have had only very few kerosene lamps in place that were only operated for short time periods, thereby only partially meeting the basic lighting demand of the household" (UNFCCC, 2012).

In the Gambian situation, the application of suppressed demand translates into the baseline scenario being that all people have basic human needs met through the use of the fossil fuel technologies previously mentioned.

H Other indicators

H.1 Other indicators of implementation

The coordination and management of the NAMA requires an institutional structure, which shall meet the following requirements.

•It must be embedded in national and sectoral policies and strategies.
•It must be capable of effective communication and reporting as required by international agencies, such as the UNFCCC.
•It must be able to ensure proper management of financial flows between the NAMA funding entities and the recipients.
•It must be able to ensure the achievement of NAMA targets in terms of electrification, GHG mitigation and sustainable co-benefits.
•It must be able to allow transparent monitoring of GHG emission reductions and the Sustainable Development indicators

The NAMA Coordinating Authority will be a sub-unit most likely in the MOE. The Coordinating Authority will act as the team which manages and tracks the operational and financial elements required to implement and operate the NAMA, and as such will serve a long-term function lasting the lifetime of the NAMA. Under the Coordinating Authority will be the Renewable Energy Fund Management Team, which will include representatives from the Authority and from PURA.

The NAMA Venture Approval Expert Group will be under the NAMA Coordinating Authority. The NAMA Venture Approval Expert Group effectively acts as the technical experts who focus on overseeing bidding processes and the incorporation of new ESPs/ventures into the NAMA. The qualifications and meeting rules and procedures of the NAMA Venture Approval Expert Group will be prepared by the NAMA Coordinating Authority. The NAMA Venture Approval Expert Group will have a budget category within the NAMA finance budget under the NAMA Coordinating Authority

Funds/reimbursements for the group meetings should be

	disbursed at the conclusion/output of each planned group meeting, not for meeting attendance. The NAMA Coordinating Authority will decide if the objectives of each meeting are met, then, when required, will distribute funds accordingly within two weeks of the meeting conclusion. This means that the conclusion/ output of each panel meeting and the related capacity requirements of each panel member should be well planned in advance by the NAMA Coordinating Authority. It would be best to include the suggested outputs in an annual work plan and budget, in line with the NAMA design. This work plan should then be approved by the NAMA Approval Committee and Trustee. The Trustee has the critical role of financial oversight of capital used for NAMA activities. The Trustee is charged with directly allocating funds to the account of the RE Fund. Before an entity becomes the Trustee for the NAMA, it will need to demonstrate compliance with a set of fiduciary and environmental and social safeguard standards to be agreed on by the NAMA financiers and the NAMA Approval Committee. The Trustee will be audited at least bi-annually and will be notified of shortcomings found in the audits by the NAMA Approval Committee.

I Other relevant information

I.1 Other relevant information including co-benefits for local sustainable development	Energy access is a priority area in national development policies because it is a crucial component of sustainable development. The current baseline scenario affects sustainable development in two ways: first, because of the technologies that it currently uses; and second, because of a lack of reliable energy access. Six key indicators will be quantitatively measured as SD proxies for Phase 1. The information below shows the quantitative baseline and target impacts of proxy sustainable development indicators : Number of operating SMEs using energy from the ventures : baseline = 0; target = 320 Number of new jobs created : baseline =0; 320 jobs for female, 320 for male Number of hours of equipment use in the RPZ (hrs/yr) : baseline =0; target = 3112 Number of hectares of irrigated using water pumped by electricity from the hectare (ha/yr) : baseline =0; target =240 Number of households connected to the minigrid which are consuming energy : baseline =0; target =800 Number of public buildings (eg. schools. clinics) connected to the mini grid : baseline =0; target =20

J Relevant National Policies strategies, plans and programmes and/or other mitigation action

J.1 Relevant National Policies	(i) The Renewable Energy Act, 2013, (ii) The National Energy Policy, (iii) Low Emission Climate Resilient Development Strategy (LECRDS) for The Gambia, 2015, (iv) Programme for Accelerated Growth and Employment (PAGE), 2012-2015, (v) The Gambia Investment and Export Promotion Agency Act, 2010, (vi) Vision 2020, 1996
J.2 Link to other NAMAs	

K Attachments

K	Attachments	**Title Description**
K.1	Attachment description	
K.2	File	Browse...

L Support received

L.1 Outside the Registry	
L.2 Within the Registry	**Support provided SupportType Amount Comment Date**