

Discussion Paper

Financing Nationally Appropriate Mitigation Actions – providing for support to receiving Governments

A concept for Governments and donors on the conceptualization, design, implementation and operationalization of NAMAs with a focus on rural electrification.

Disclaimer: The Discussion Paper is not the official opinion of the UNDP.

United Nations Development Programme

ENVIRONMENT AND ENERGY



Introduction

The purpose of this paper is to elaborate further on the concept presented at the UNDP-WBI webinar ‘Engaging the Private Sector in Fast Start NAMAs’ (<http://einstitute.worldbank.org/ei/webinar/engaging-private-sector-fast-start-namas>) on 9th April 2014, with a particular focus on the design and implementation of a potential funding mechanism between a donor or supporting Government and the implementing or receiving Government and the partners responsible for operationalizing¹ the NAMA intervention. In order to benefit the development of existing NAMA initiatives, the paper focuses on the application of NAMAs to finance rural electrification.

Under the concept of a NAMA, donor governments and public or private sector entities are invited to provide financial support to actions which are considered to contribute to host country mitigation as well as deliver a range of other social and environmental benefits.

In order to ensure that the mitigation action is prolonged and that the receiving country continues to benefit from and report the benefits of the mitigation actions in the national inventory, it may be necessary, amongst other things, to build a certain level of capacity in the relevant Government Departments. This paper describes how the NAMA financing mechanism can be used to provide support for crucial Government services which are considered essential to enable the NAMA to continue and possibly grow and or facilitate further investments in the sector.

Underlying Principles

This section provides comments on underlying principles which help to explain some of the design options in the later sections of the paper.

Good quality monitoring and reporting enables donors to pay for results on delivery. NAMAs are increasingly being understood as a basis for delivering “output-based aid” or “payment-by results”. Although this is not a new concept in general, its application in development assistance is quite recent and it represents a new model by which donor Governments in particular may be able to disperse development aid. Under the approach, the donor Government will agree to pay for the delivery of certain GHG mitigation benefits alongside other sustainable development benefits agreed with the receiving Government and NAMA partners. The measurement, reporting and verification (MRV) of the mitigation benefits can be undertaken using of the building blocks of the CDM, in particular, elements of approved methodologies such as baselines and technical procedures for accurately or conservatively assessing GHG emission reductions.

Transparency - The high standards of transparency built into the CDM also help to set an example of what can be achieved. Under the CDM, for example, documents were made available for both local/national and international stakeholder consultation and verification reports were published and subjected to third party verification, providing a new level of international transparency (before the CDM, it is unlikely that a stakeholder in any country around the world could review technical proposals and financial details of such a wide range of development related interventions). Although the existing CDM infrastructure cannot be used for the purposes of a NAMA, if stakeholders considered that such levels

¹ The design of the NAMA is essentially a desk based exercise between potential partners to describe the NAMA; implementation of the NAMA covers the creation of the institutional infrastructure required to enable the NAMA interventions to be operationalized; and operationalizing the NAMA refers to activities undertaken by NAMA partners to actually build and operate the hardware.

of transparency were appropriate and desirable, similar mechanisms could be developed by a NAMA Coordinating Authority.

The use of selected elements of the CDM project infrastructure enables mitigation results to be reported in an accurate (conservative) consistent, complete, comparable and transparent manner, which in turn enables donor Governments to pay for the resulting mitigation benefits.

Mitigation vs transfer of units - It is proposed that the emphasis of NAMAs is on mitigation in the support receiving country. There are theoretical models where one or more components of a NAMA are operationalized using an offset standard such as the CDM and the resulting credits are transferred out of the country to assist with mitigation or meeting targets in a third country. It must be understood that such units, if transferred out of the country, must be reflected as emissions in the support receiving or (in CDM terms) the Host Country's national inventory. Failure to do so amounts to double counting and undermines the mitigation benefits. Supported NAMAs should result in mitigation which is reported, in more or less detail, in the operationalizing country's national inventory. Ideally, they should not result in the creation of units for transfer.

Hard-to-measure activities - Since units do not need to be accurately or conservatively quantified for international transfer, NAMAs have a great potential to reach out to so-called "hard-to-measure" activities. Donor Governments may be prepared to simply accept that an activity contributes to mitigation in the receiving country without the need to accurately quantify it and hence a significant part of the MRV element can be addressed through *ex ante* assessment against pre-defined eligibility criteria. Hard-to-measure activities include rural electrification, energy efficiency and transport where it is either or both technically difficult to accurately quantify emission reductions and/or expensive to measure. For this reason, NAMAs may be a good model for financing eligible activities which deliver a wide range of additional benefits and where the CDM has been less influential.

Sector transformative programs - NAMAs have the potential to be truly transformative but shall always consist of concrete interventions to achieve the targets set in the national strategies. Such concrete interventions can be programs acting as an umbrella for multiple interventions. Nevertheless, all interventions under a NAMA will still require a degree of measurement and reporting however there may interventions which, whilst difficult, expensive or technically impossible to monitor under the CDM, could possess measurable parameters which provide sufficient evidence of GHG mitigation and sustainable development benefits to enable donors to finance them via a NAMA structure. For example, rural electrification has a wide range of impacts upon rural communities which have undeniable sustainable development benefits however quantifying these, and associated GHG emission reductions compared to baseline is extremely complex and after applying conservative factors to account for uncertainty or simplified monitoring procedures in a CDM methodology, the resulting emission reductions could be relatively small. Under a NAMA, however, a donor might be willing to accept a deemed savings quantification approach which, for example, estimates emission reductions per household connection. A donor might also be willing to accept bespoke studies and surveys to quantify sustainable development benefits in terms of, for example, gender time use and household expenditure on fossil fuels. Whilst these approaches might not meet the standards set by regulators and stakeholders under the CDM for the creation of Certified Emission Reductions for transfer and use for offsetting greenhouse gas emissions in other jurisdictions, they may satisfy donors' expectations for nationally appropriate mitigation actions.

NAMA Partners

The Participants in a NAMA are not specifically defined but will rather be determined by the nature of the NAMA however four key Partners can be identified:

Supporting or donor entity: This entity could be a government, a multilateral development agency such as UNDP or a development bank, a Foundation etc. Under a results-based funding concept, their role is to define the nature of the support they wish to provide and agree on the deliverables against which the funding will be disbursed.

Receiving Government: The Receiving Government has responsibility for creating the policy environment in which the NAMA will operate. This activity may involve, amongst other things, creating and operationalizing legislation and regulations, coordinating activities amongst different Ministries, Government Departments and Agencies etc., and monitoring and reporting activities. It is also noted that some of these activities could be outsourced by the Receiving Government. As some of these activities may be critical to the success of the NAMA, it is not unreasonable that the Receiving Government should receive financial support from the Supporting Government. This paper explains how that financial support may be delivered.

NAMA Coordinating Authority: The NAMA Coordinating Authority would be a newly formed body which takes responsibility for overseeing the implementation and operationalization of the NAMA on the ground. Once the receiving Government has started to implement the NAMA, the NAMA Coordination Authority will start to work with all NAMA Partners, including the intervention developers, communities, public and private entities that wish to invest in the construction and operation of equipment on the ground. This organization is effectively the NAMA Coordinating Authority who works to ensure that all Partners deliver on their commitments and that no bottle necks or barriers build up and are left unresolved. Within the concept of aligned interests, they are key to ensuring that all NAMA Partners work towards the achievement of the same goals.

NAMA operationalizing entities: There will hopefully be dozens of NAMA operationalizing entities who are contracted to operationalize activities of the NAMA on the ground. These could be public private partnerships, private sector investors, communities, NGOs or Government departments or other entities, depending on the nature of the NAMA. They also need receive appropriate financial support from the donor. Ideally this should be disbursed on the basis of verified results but in some circumstances, donors may have to accept at least some of the risks associated with financing activities in advance.

Supporting implementation and operationalization of the intervention by the receiving Government

It is proposed that the financial support to receiving Governments consists of two kinds of payments: *ex ante* payments for agreed budget line items such as additional staff, convening meetings etc. and *ex post* payments to the overall budget of the relevant ministries based on a percentage of the total disbursements under the NAMA. These are detailed below:

Budgeting for the costs of implementing the NAMA

Support to create the institutional infrastructure to implement the NAMA should be based on budgeted costs related to the receiving Government's essential activities. These items (which are further detailed

in section 6 below) should be based a detailed understanding of the roles and responsibilities of the receiving Government's departments. These items are likely to include a proportion of existing staff time / new recruits; office space; computers and phones; travel and transport and overheads etc. and these should be consistent with existing budget norms. Additional one off costs might include training and awareness raising for different stakeholders, convening stakeholder meetings and attending international events to share experiences with other NAMA implementing Governments and specialist consultancy inputs.

It is recommended that there is sufficient flexibility to review the level of support periodically to ensure that the success of the NAMA is not jeopardized due to lack of Government resources, or indeed resources in any NAMA partner.

Incentivizing the operationalization of the NAMA

On the basis that the NAMA is a results based instrument, it is proposed that financial support to receiving Governments is also partially results based, in a manner which aligns the interests of both the operationalizing agencies and the receiving Government to achieve the results. It is proposed that participating Ministries would receive a percentage of total disbursements under the NAMA. This payment is designed to incentivize participation and the achievement of goals under the assumption that the rate of expenditure is an indicator of success. Building on current fashions in the financial world, donors might like to consider some form of a claw-back of such payments in the event that certain longer term goals are not achieved.

Maintaining the long term mitigation and sustainable development benefits of the NAMA

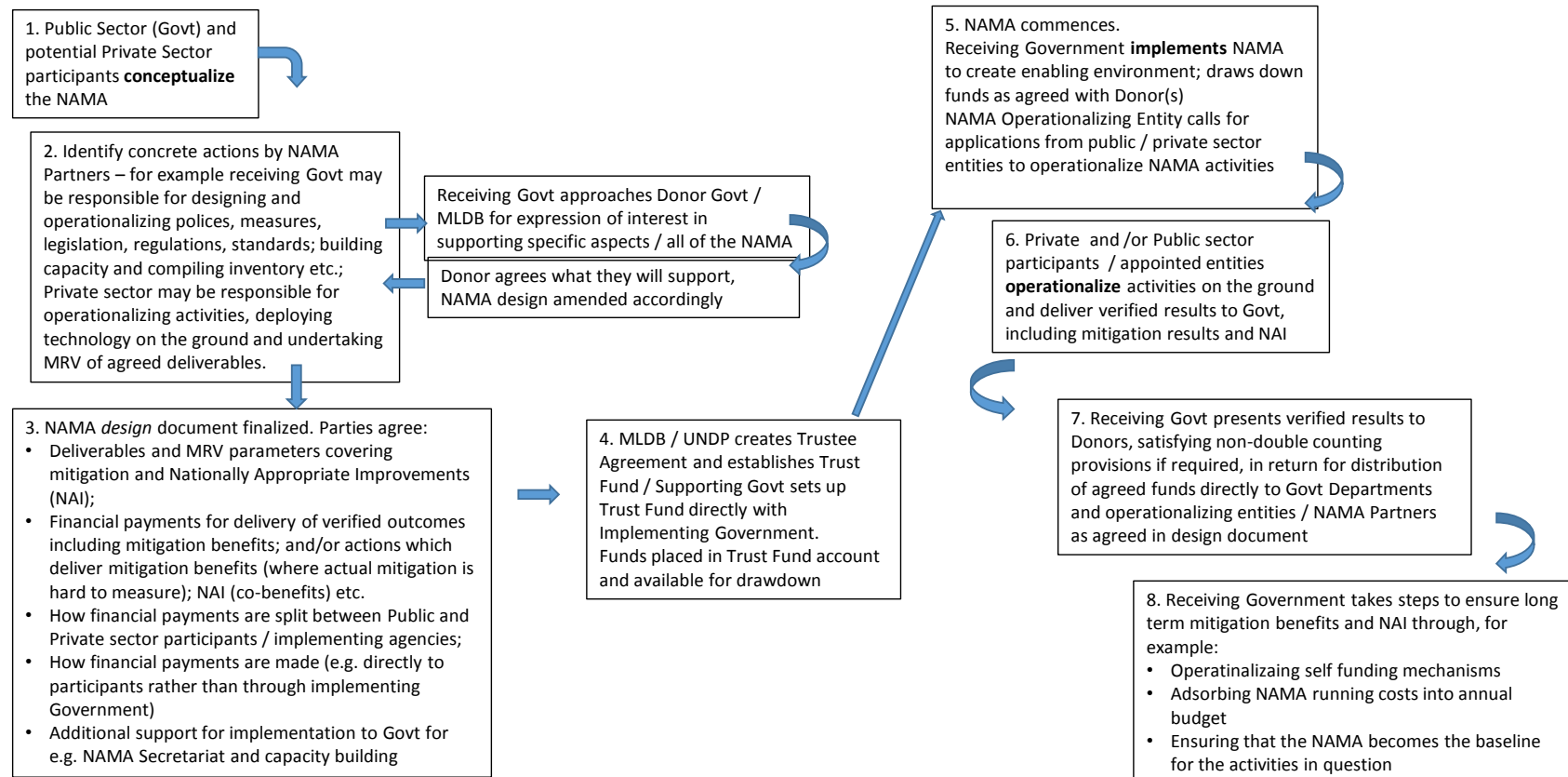
In order to ensure that the NAMA activities continue after donor support concludes, the receiving Government may be expected to start to adsorb the on-going costs or put in place cost recovery mechanisms, legislation or regulations that ensure that the NAMA activities become the baseline. The NAMA Design Document should outline how this transition could be achieved.

Putting a NAMA into practice

The purpose of this section of the guidance manual is to describe a narrative for the development of a fictional NAMA in an undefined country. As noted in the introduction, UNDP's focus for this guidance manual is on rural electrification and hence the narrative will develop a rural electrification scenario. This narrative is conceptual and is not implemented to reflect or describe the circumstances in any particular country and therefore may be generalized in some areas and specific in others. The narrative is developed in order to provide guidance as to how a NAMA could be operationalized and is not meant to be definitive.

Figure 1 below describes a flow chart for the key stages of conceptualisation, design, implementation and operationalization of the NAMA. The Narrative follows the stages in this flow chart.

Figure 1: Indicative flow chart for the conceptualization, design, implementation and operationalization of a supported NAMA



Step 1: Conceptualizing the NAMA.

A development organisation with international credibility and strong convening power, such as the UNDP, convenes a meeting with the Government of the Receiving Country (Country X) and specifically with the Office of the President and representatives of the Ministries responsible for Energy, Environment, International Finance and Climate Change. The purpose of the meeting is to propose that Country X implements a NAMA to help achieve a range of Nationally Appropriate sustainable development goals whilst at the same time mitigating GHG emissions from Country X.

The Government of the Receiving Country (Country X) agrees to support the implementation and operationalization of one or more NAMAs subject to there being sufficient funding from donor agencies or development banks and further support from UNDP or others to ensure that the NAMA is successful. UNDP agrees to work with the Government to support and convene a further series of meetings to consult with stakeholders to define the NAMA.

The Ministry of Finance and Ministry of Foreign Affairs, which maintain formal contacts with potential donor organisations and multilateral development banks (MLDB) and UN Organisations, open initial discussions with potential funding organisations to gauge their appetite to support such actions. In view of the forthcoming capitalisation of the Green Climate Fund and Parties' desires to progress towards a 2020 agreement, there is significant interest amongst the donor community in participating in a "Supported NAMA" concerning rural electrification in Country X.

As step 1 draws to a close, the key stakeholders – some of whom will become NAMA Partners - are now defined (although the door is always open for more to join) and there is agreement on the overall objectives of the NAMA. At this point it is important to understand why each stakeholder is interested in the NAMA and what they may hope to gain from their participation. This is important because the involvement of multiple parties raises the risks of delays or even failure due to one or more parties not fulfilling their responsibilities. Results in cooperative initiatives are best achieved when interests are aligned i.e. all stakeholders are motivated to achieve the same goals. Motivation often takes the form of payment and to ensure that the ultimate goals are achieved, a significant proportion of the payment should be made on the basis of delivery of results but there are other motivating factors as well and these will need to be recognized.

Table 1 below lists generic stakeholders, their proposed roles and responsibilities and examples of some of the factors which may explain their motivation to see the NAMA succeed. This table is illustrative and does not seek to characterise stakeholder groups:

Table 1: Stakeholders, Roles, Responsibilities and potential motivation to participate in a rural electrification NAMA

Who	Roles	Responsibilities	Why?
Top level political supporter e.g. Office of the President	<ul style="list-style-type: none"> Lead the NAMA initiative and ensure that line Ministries participate accordingly 	<ul style="list-style-type: none"> Ensure Line Ministries participate to achieve the goals Steer the development, approval and operationalization of necessary policies, legislation and regulations Liaise with donor organisations to secure funding 	<ul style="list-style-type: none"> This office is responsible for the overall development of the country, its economy and its people, success will therefore strengthen political support for the President Success will provide a national and international platform to further political and personal aspirations NAMA funding will support annual budget for the Office of the President
Ministry of Energy	<ul style="list-style-type: none"> Implement the NAMA by creating the necessary institutional infrastructure Ensure that the NAMA's objectives are consistent with broader national energy plans and priorities Support the implementation and operationalization of the NAMA 	<ul style="list-style-type: none"> Lead the preparation of relevant policies, legislation, regulation and guidelines Create the necessary institutional infrastructure Integrate NAMA with existing policies and programmes Contribute technical expertise to "NAMA Secretariat" Process necessary approvals efficiently and effectively 	<ul style="list-style-type: none"> Successful implementation and operationalization of the NAMA will help the Ministry achieve its long term Energy Plan Strengthen political support for the Minister Provide budgetary support for the Ministry Create career development opportunities for staff
Ministry of Environment	<ul style="list-style-type: none"> Ensure that the NAMA contributes to Sustainable Development objectives Host NAMA Secretariat Support the implementation and the operationalization of the NAMA 	<ul style="list-style-type: none"> Lead the preparation of relevant policies, legislation, regulation and guidelines Create the necessary institutional infrastructure Integrate NAMA with existing policies and programmes Contribute technical expertise to "NAMA Secretariat" Host the NAMA Secretariat, perhaps in combination with existing DNA and NAMA Focal Point responsibilities Process necessary approvals efficiently and effectively 	<ul style="list-style-type: none"> Successful implementation and operationalization of the NAMA will help the Ministry achieve its long term Energy Plan Strengthen political support for the Minister Provide budgetary support for the Ministry Additional power to Ministry for hosting NAMA Secretariat Create career development opportunities for staff
NAMA Secretariat	<ul style="list-style-type: none"> Develop and implement modalities and procedures for application for approval 	<ul style="list-style-type: none"> Develop and implement Modalities and Procedures for NAMA Intervention approval Host NAMA Intervention Approval Panel Prepare template documents, guidance etc 	<ul style="list-style-type: none"> NAMA Secretariat will be constituted to perform these roles Employment with possible incentives for successful NAMA intervention Prospects of career progression for successfully implementing roles and responsibilities

	of NAMA Interventions	<ul style="list-style-type: none"> • Service the Approval Panel 	
Communities and Community Leaders	<ul style="list-style-type: none"> • Encourage the development of / develop interventions to deliver rural electrification services with support from the NAMA 	<ul style="list-style-type: none"> • Raise awareness of the NAMA amongst community • Facilitate the formation of or form a “Community Energy Company” which will be responsible for developing the rural electrification infrastructure • Issue / procure the issuance of necessary permits • Liaise with Government Ministries and NAMA Operationalization Agency to secure necessary support 	<ul style="list-style-type: none"> • Delivery of rural electrification services will substantially strengthen their political support • Communities and community leaders both will benefit from improved quality of life through rural electrification • Community leaders may benefit financially from rural electrification • Rural electrification will bring other development opportunities to rural communities
NAMA Coordinating Authority	<ul style="list-style-type: none"> • Bring all partners together to implement and operationalize the NAMA 	<ul style="list-style-type: none"> • Hold NAMA partners to the timelines and concrete deliverables agreed in the NAMA design document • Ensure that necessary institutional infrastructure is developed by Governmental NAMA Partners • Encourage and assist potential NAMA operationalization entities / NAMA Partners to prepare and submit applications for NAMA interventions • Oversee the implementation of approved interventions • Perform review and reporting functions 	<ul style="list-style-type: none"> • Established to operationalize the NAMA • Staff recruited and paid to oversee the operationalization of the NAMA • Staff should have a commitment to development issues and a desire to see the NAMA succeed • Staff may be paid a bonus based on NAMA achievements
Research Institute	<ul style="list-style-type: none"> • Research Institutes are responsible to ensure that applied technologies and policies are appropriate to the needs and conditions of application 	<ul style="list-style-type: none"> • Innovate new technologies and policies and research the application of existing technologies and policies to ensure that technical and policy-based interventions are appropriate • Publish results to inform decision makers • Undertake specific engagements to develop technical standards for safe and successful technical interventions 	<ul style="list-style-type: none"> • Publication of results • Access to information • Opportunities for research theses and application to other sources for funding • Secure funds for salaries • Career progression opportunities for staff • Payment for development of specific standards etc.
Academic Institute	<ul style="list-style-type: none"> • Academic institutions are responsible to carry out studies to enhance understanding and for communicating information and knowledge to the global community 	<ul style="list-style-type: none"> • As for Research Institutes above plus • Communicate knowledge to students • Serve as a repository of information and historical knowledge to enable lessons to be drawn from past actions 	<ul style="list-style-type: none"> • As above plus • Opportunity to be involved in, and to observe the development of NAMAs

Environmental NGO (national and international)	<ul style="list-style-type: none"> • Protect the environment from intentional / unintended damage 	<ul style="list-style-type: none"> • Ensure that NAMA activities do not damage the environment by commenting on proposed activities via various stakeholder meetings • Ensure that any emission reduction claims have high levels of environmental integrity • Inform the international community of practices which are both good and bad for the environment 	<ul style="list-style-type: none"> • As membership driven organisations, Environmental NGOs are expected to act to preserve the interests of their members • By being visibly present and providing valuable input they increase their profile and potential membership and increase their ability to raise funding to promote greater environmental awareness and protection • Inclusion and recognition as a stakeholder, a seat at the table and the right to be heard
Social NGO (national and international) Including Women's groups	<ul style="list-style-type: none"> • Protect vulnerable and un-represented groups from intended or un-intended exploitation 	<ul style="list-style-type: none"> • Ensure that NAMA activities do not infringe upon the rights of communities, groups and individuals • Ensure the needs of such groups are taken into consideration in the design of the NAMA • Inform the international community of practices which are good and bad for social groups 	<ul style="list-style-type: none"> • As membership driven organisations, Social NGOs are expected to act to preserve the interests of their members • By being visibly present and providing valuable input they increase their profile and potential membership and increase their ability to raise funding to promote greater social awareness and protection • Inclusion and recognition as a stakeholder, a seat at the table and the right to be heard
Civil Society	<ul style="list-style-type: none"> • May be a combination of Social and Environmental NGOs above, but not necessarily organised into a formal NGO 	<ul style="list-style-type: none"> • As above 	<ul style="list-style-type: none"> • As above
Technology providers	<ul style="list-style-type: none"> • Provide appropriate technology with performance guarantees 	<ul style="list-style-type: none"> • Develop and market suitable hardware 	<ul style="list-style-type: none"> • Market penetration / access to new markets in new regions • Guaranteed revenues / reduced risks for investing
Intervention developers / private sector investors	<ul style="list-style-type: none"> • Identify, develop and finance interventions 	<ul style="list-style-type: none"> • Work with local communities to help identify and define suitable rural electrification interventions • Prepare bankable documentation • Arrange finance • Manage engineering, procurement and construction • Operate and maintain intervention infrastructure • Train and education local staff 	<ul style="list-style-type: none"> • Employment and profit • Professional motivation to identify and build challenging interventions • Sell specific technology in which they may have an interest
Private sector financial institutions	<ul style="list-style-type: none"> • Lend money for profit 	<ul style="list-style-type: none"> • Develop and market appropriate financing instruments 	<ul style="list-style-type: none"> • Access to a new generation of both private and commercial clients who may be expecting to experience growing income and a growing

		<ul style="list-style-type: none"> • Assist in the development of rural economies by providing finance for small businesses • Identify risks and take steps to reduce those risks so that lending can be affordable 	need for financial services
MLDB / UNDP / Donors	<ul style="list-style-type: none"> • Promote development 	<ul style="list-style-type: none"> • Identify and develop interventions which can assist in the long term sustainable development of under-developed countries and communities 	<ul style="list-style-type: none"> • Such entities are constituted to provide development assistance • Individuals tend to be highly motivated to provide assistance • Governments have charged these bodies with the task of using this money to promote sustainable development
Verification bodies	<ul style="list-style-type: none"> • To provide independent reports of findings 	<ul style="list-style-type: none"> • Develop and maintain independent organisational structures • Employ and deploy professional teams of assessors who are free of conflicts of interest • Stake their reputation against the veracity of the findings described in their reports 	<ul style="list-style-type: none"> • To fulfil a need for independent reports in commerce and finance • Employment and Profit
Others to be added	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> •

Step 2: Identifying concrete interventions for NAMA Partners

The objectives of this section of the NAMA design process are to define the kinds of concrete interventions which NAMA Partners will undertake and start a limited round of negotiations with potential donor organisation(s) as to what they are willing to support. This stage is important to ensure that all potential NAMA Partners understand what level of support is likely to be available in return for fulfilling specific responsibilities and to manage expectations amongst all stakeholders and partners.

The concrete interventions are related to the roles and responsibilities of the stakeholders and those stakeholders who have significant roles and responsibilities need to be compensated in some way for their input or they need to demonstrate how they can deliver on their responsibilities using their own resources. This is not to say that the donor supporting the NAMA is going to fund everything, but it is important to be able to demonstrate all key functions are adequately resourced and in a payment by results model, that means that NAMA Partners typically deliver on their responsibilities and are compensated. The timing of financial compensation may be critical especially in situations where institutional infrastructure needs to be built and where NAMA partners do not have the ability to incur costs in advance of compensation and so supporting donors may need to accept the risk associated with payments in advance of delivery.

Table 2 below starts to detail some of the concrete deliverables to which NAMA Partners will commit. These may be further defined and presented in the form of a Gantt chart to link timing of deliverables to the overall implementation and operationalization of the NAMA.

The Gantt chart and supporting documentation would be presented to supporting donors for discussion and negotiation over the terms of exactly what and how they are willing to support.

Some of the key features which become apparent include:

- The need to finance Government departments in association with the implementation of the NAMA as well as to incentivize them to ensure the successful operationalization of the NAMA. Two types of payment are proposed – payments against approved budget line items to help build the institutional infrastructure required to implement the NAMA and compensation for non-specific items (for example contributions to overall administrative costs) to be covered by a percentage of total annual disbursements paid in the year following the disbursements.
- Some NAMA Partners need wide ranging support to help operationalize the NAMA – e.g. community based organizations whose needs may start with training and awareness raising, help preparing bankable documentation, help to set up and run a commercial or non-commercial enterprise etc., right up to financing to build infrastructure; whilst others may need very specific support to help overcome commercial risks such as technology providers who may only need a guarantee of a minimum level of revenue.
- Others may need no specific support on the basis that they create further business opportunities or adequate revenues from NAMA-based activities. For example commercial banks may develop packages to leverage public sector finance on the basis that they will gain access to a new generation of business and private customers who anticipate rising incomes and standards of living with the advent of grid connection and the ability to develop new entrepreneurial business activities. Even though they do not need support, their commitment to deliver is critical to the long term success of the NAMA.

Representatives of the Office of the President and the Ministries of Finance and Foreign Affairs supported by representatives from the Ministries of Energy and Environment would be responsible for presenting the NAMA proposals to donor(s) and negotiating a suitable agreement.

Table 2: Concrete deliverables and proposed compensation mechanisms

Who	Responsibilities	Concrete deliverables	Proposed compensation mechanism
Top level political supporter e.g. Office of the President	<ul style="list-style-type: none"> • Ensure Line Ministries participate to achieve the goals • Steer the development, approval and operationalization of necessary policies, legislation and regulations • Liaise with donor organisations to secure funding 	<ul style="list-style-type: none"> • Publish an approved NAMA Design Document defining the objectives of the NAMA and outlining the agreed roles and responsibilities of NAMA Partners. • Ensure that necessary policies and legislation brought before the Parliament and are approved and operationalized. • Conclude negotiations with donor(s) to support the implementation and operationalization of the NAMA. 	<ul style="list-style-type: none"> • Publication of progress reports and achievements arising from the NAMA attributing the success to the NAMA Partners under the leadership of the Office of the President • X% (e.g. <1%) of total annual disbursements (ex post) as a contribution towards a fair share of NAMA related administration costs. •
Ministry of Energy	<ul style="list-style-type: none"> • Lead the preparation of relevant policies, legislation, regulation and guidelines • Create the necessary institutional infrastructure • Integrate NAMA with existing policies and programmes • Contribute technical expertise to “NAMA Secretariat” • Process necessary approvals efficiently and effectively 	<ul style="list-style-type: none"> • Build NAMA into annual management plans • Develop effective policy and legislation to enable operationalization of the NAMA e.g. legislation allowing private companies to enter into Power Purchase Agreements; liberalising the ownership and operation of the national grid and mini-grids; allowing the formation of Energy Supply Companies (ESCOs); developing Feed in Tariffs and other market instruments to encourage renewable energy and energy infrastructure • Provide a minimum of two expert staff to review technical details of intervention proposals under the NAMA via the NAMA Secretariat • Establish and operationalize procedures for the receipt and timely approval of applications to develop rural electrification interventions under the NAMA 	<ul style="list-style-type: none"> • Technical support to develop effective policies and regulations via, for example, national and international consultants paid by donor • Financial support to convene stakeholder workshops and run calls for input to help develop effective policies and regulations • Yearly in advance, financial support for staff / budget line items assigned to NAMA Secretariat or equivalent body • Yearly ex post X% (e.g. <1%) of total annual disbursements as a contribution towards a fair share of NAMA related administration costs.
Ministry of Environment	<ul style="list-style-type: none"> • Lead the preparation of relevant policies, legislation, regulation and guidelines • Create the necessary institutional infrastructure • Integrate NAMA with existing policies and programmes 	<ul style="list-style-type: none"> • Build NAMA into annual management plans • Develop effective policy and legislation to enable operationalization of the NAMA e.g. appropriate EIA and stakeholder consultation regulations; procedures for treatment of industrial waste (e.g. for handling 	<ul style="list-style-type: none"> • Technical support to develop effective policies and regulations via, for example, national and international consultants paid by donor • Financial support to convene stakeholder workshops and run calls for input to help develop effective policies and regulations

	<ul style="list-style-type: none"> Contribute technical expertise to “NAMA Secretariat” Host the NAMA Secretariat, perhaps in combination with existing DNA and NAMA Focal Point responsibilities Process necessary approvals efficiently and effectively 	<ul style="list-style-type: none"> of decommissioned distribution equipment as part of an upgrade to existing grid) etc. Provide a minimum of two expert staff to review technical details of intervention proposals under the NAMA via the NAMA Secretariat Establish and operationalize procedures for the receipt and timely approval of applications to develop rural electrification interventions under the NAMA 	<ul style="list-style-type: none"> Yearly in advance, financial support for staff / budget line items assigned to NAMA Secretariat or equivalent body Yearly ex post X% (e.g. <1%) of total annual disbursements as a contribution towards a fair share of NAMA related administration costs.
NAMA Secretariat	<ul style="list-style-type: none"> Develop and implement Modalities and Procedures for NAMA Intervention approval Host NAMA Intervention Approval Panel Prepare template documents, guidance etc Service the Approval Panel 	<ul style="list-style-type: none"> Create an environment in which the NAMA Approval body can function effectively and efficiently Reach out to potential intervention developers and help build their capacity, if necessary, to prepare proposals for approval by the Approval Panel 	<ul style="list-style-type: none"> Staff are paid via their relevant Ministries which receive support from the donor Annual budget yearly in advance for running costs including hosting for example 6 NAMA Approval Panel meetings per year and one off events such as capacity building and awareness raising
Communities and Community Leaders	<ul style="list-style-type: none"> Raise awareness of the NAMA amongst community Facilitate the formation of or form a “Community Energy Company” which will be responsible for developing the rural electrification infrastructure Issue / procure the issuance of necessary permits Liaise with Government Ministries and NAMA Operationalization Agency to secure necessary support 	<ul style="list-style-type: none"> Develop bankable proposals to create community energy companies Obtain approvals for the construction of renewable energy and grid connection infrastructure Develop and operationalize or deploy existing revenue collection mechanisms Apply for and obtain grid connection permits, feed in tariffs or other incentives Monitor and report on the delivery of agreed sustainable development parameters including, inter alia, kWh of renewable energy generated and/or delivered; other sustainable development parameters to be agreed. 	<ul style="list-style-type: none"> Training and technical support to develop bankable intervention proposals to create a commercial or non-commercial community energy company Finance package to pay for the purchase of renewable energy equipment and grid / mini-grid connection equipment Payments for delivery of verified results in the form of X USD per MWh generated or delivered to new connections; Y USD per household connected to the grid / mini-grid; Z USD per verified sustainable development result (based on, for example, health, education, female empowerment, formation of agro-industries etc.).
NAMA Coordinating Authority	<ul style="list-style-type: none"> Hold NAMA partners to the timelines agreed in the NAMA design document Ensure that necessary institutional infrastructure is developed by Governmental NAMA Partners 	<ul style="list-style-type: none"> Create / appoint legal entity to operationalize NAMA (could be a limited company or a charity) Recruit competent staff Establish transparent working procedures Prepare NAMA for approval, convene meetings, promote NAMA etc. 	<ul style="list-style-type: none"> Start-up and early running costs would need to be supported by the donor community and or host government and or other charitable foundations Thereafter, compensation could be on a success fee basis per intervention operationalized and / or as a percentage of total annual disbursements

	<ul style="list-style-type: none"> • Encourage and assist potential Operationalization NAMA Partners to prepare and submit applications for NAMA interventions • Oversee the implementation of approved interventions • Perform review and reporting functions 	<ul style="list-style-type: none"> • Work with approved NAMA interventions to ensure successful operationalization 	
Research Institute	<ul style="list-style-type: none"> • Innovate new technologies and policies and research the application of existing technologies and policies to ensure that technical and policy-based interventions are appropriate • Publish results to inform decision makers • Undertake specific engagements to develop technical standards for safe and successful technical interventions 	<ul style="list-style-type: none"> • Define technical standards for equipment 	<ul style="list-style-type: none"> • Continued funding from central government • Opportunities to raise finance from non-government sources • Payment for delivery of effective and appropriate technical standards for renewable energy and grid connection equipment • Career progression • Remaining involved in current developments • Publications
Academic Institute	<ul style="list-style-type: none"> • As for Research Institutes above plus • Communicate knowledge to students • Serve as a repository of information and historical knowledge to enable lessons to be drawn from past actions 	<ul style="list-style-type: none"> • Reports on, for example, the impact of NAMA interventions on health, time management, income and expenditure, development of rural communities (this could as well be carried out by a research institute with a social development remit) 	<ul style="list-style-type: none"> • Continued funding from central government • Opportunities to raise finance from non-government sources • Career progression • Remaining involved in current developments • Publications
Environmental NGO (national and international)	<ul style="list-style-type: none"> • Ensure that NAMA activities do not damage the environment by commenting on proposed activities via various stakeholder meetings • Ensure that any emission reduction claims have high levels of environmental integrity • Inform the international community of practices which are both good and bad for the environment 	<ul style="list-style-type: none"> • Useful feedback that enhances the environmental integrity of the NAMA 	<ul style="list-style-type: none"> • Continued support from members • Ability to apply for funding from donor governments and non-government foundations etc. • Raised profile, greater lobbying power

Social NGO (national and international) Including Women's groups	<ul style="list-style-type: none"> • Ensure that NAMA activities do not infringe upon the rights of communities, groups and individuals • Ensure the needs of such groups are taken into consideration in the design of the NAMA • Inform the international community of practices which are good and bad for social groups 	<ul style="list-style-type: none"> • Useful feedback which enhances the social integrity of the NAMA 	<ul style="list-style-type: none"> • Continued support from members • Ability to apply for funding from donor governments and non-government foundations etc. • Raised profile, greater lobbying power
Civil Society	<ul style="list-style-type: none"> • Combination of social and environmental NGOs above. 	<ul style="list-style-type: none"> • As above 	<ul style="list-style-type: none"> • As above
Technology providers	<ul style="list-style-type: none"> • Develop and market suitable hardware 	<ul style="list-style-type: none"> • Provide renewable energy and grid equipment with performance guarantee • Provide training and / or qualified engineers to install equipment • Provide training and / or qualified engineers to maintain equipment • Provide appropriate and functional monitoring equipment • Develop financing packages to promote and facilitate the purchase of equipment 	<ul style="list-style-type: none"> • Guaranteed market access to a minimum value of equipment underwritten by EXIM Bank of Country X or Y • Potentially a subsidy of X USD per unit from donor • Additional payments for equipment which is manufactured in Country X
Intervention developers / private sector investors	<ul style="list-style-type: none"> • Work with local communities to help identify and define suitable rural electrification interventions • Prepare bankable documentation • Arrange finance • Manage engineering, procurement and construction • Operate and maintain interventions infrastructure • Train and education local staff 	<ul style="list-style-type: none"> • Intervention proposals including financing proposals from private sector groups; public private sector partnerships; or as advisers to community based groups • EOPC and O&M contracts delivered on time and to specification 	<ul style="list-style-type: none"> • Returns on investment which are commensurate with the levels of risk • These may include payments from donors in hard currencies either up front (on capital expenditures) and/or against verified deliverables
Private sector financial institutions	<ul style="list-style-type: none"> • Develop and market appropriate financing instruments • Assist in the development of rural economies by providing finance for small businesses • Identify risks and take steps to reduce those risks so that lending can be affordable 	<ul style="list-style-type: none"> • Financing packages to leverage public sector funding. For example, operating capital, expansion capital based on working assets; financing packages for agro-industries developing on the basis of access to electricity; micro-finance schemes for farmers 	<ul style="list-style-type: none"> • Access to new business and private customers

UNDP / MLDB / Donors	<ul style="list-style-type: none"> • Identify and develop interventions which can assist in the long term sustainable development of under-developed countries and communities 	<ul style="list-style-type: none"> • Provide financial support for a range of agreed concrete actions 	<ul style="list-style-type: none"> • Verified results in terms of: • MWh of renewable energy generated and/or delivered to rural households or conversion of delivered energy into emission reductions against an agreed baseline • Sustainable development benefits against an agreed baseline
Verification bodies	<ul style="list-style-type: none"> • Develop and maintain independent organisational structures • Employ and deploy professional teams of assessors who are free of conflicts of interest • Stake their reputation against the veracity of the findings described in their reports 	<ul style="list-style-type: none"> • High quality independent reports upon which decision makers can rely 	<ul style="list-style-type: none"> • Payment for services
Others to be added	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> •

Step 3: Finalizing the design of the NAMA

The objectives of this step are to formally document the design of the NAMA and specifically define the mechanism for payment for implementation of the NAMA and payment for the results of operationalization. This step draws heavily on the work of the previous step. It is critically important to accurately document the agreements and to ensure that all NAMA Partners are in agreement. It may be necessary to formalize the agreement with some of the NAMA Partners in the form of a contract or an MoU with the Government or the NAMA Operationalizing Agency.

The final NAMA Design Document, with agreed levels of financial support from donor(s) would be signed by the President perhaps with supporting MoUs with various other stakeholders and NAMA Partners. Financial details could be kept confidential in a separate NAMA contract. Commercial contracts with specific NAMA Partners would then follow - for example with technology providers, commercial banks and perhaps one or more leading communities who would be amongst the first entities to start to operationalize the rural electrification NAMA.

This step would also involve the definition of the modalities of payments, two of the key features being that:

- a) Payments to NAMA Partners are made directly from the supporting donor to the Partner and not via the Government. The benefit of this approach is that the support is clearly seen as support from a donor government and subject to the terms of the NAMA, in particular the duration of any such support. In this way there will be no expectation that the Government will continue to make payments in the long term and it will be abundantly clear that once the NAMA support is ended, the infrastructure must be self supporting.
- b) For international partners especially, the investment risks are substantially reduced if the verified results are communicated directly to the donor and payment is made directly to the partner. This mechanism was a factor in the success of the CDM whereby unless Parties raised a request for review, CERs from projects in the host country were issued directly into the Project Participant's account in the CDM Registry from where they could be transferred to any other registry without interference from the host government.

Step 4: Trust and trustees

Step 4 involves the creation of the trust funds, trustees etc. to administer to NAMA contract. It is likely, for the following reasons that a UN Organisation such as the UNDP or a Multi-Lateral Development Bank such as the World Bank or the African Development Bank would be asked to run this on behalf of the donor organisation:

- a) There is a very high level of detail in the operationalization, approval and payment schedule which might make it difficult for a donor country to administer the funds from their end.
- b) In-country officers would most likely be required to cope with the level of detail, so only donors who are prepared to maintain a significant presence in Country X could realistically manage the funds
- c) A multi-lateral organisation such as the UNDP, based in the country may be better positioned to handle multiple NAMAs supported by a range of donor countries
- d) The NAMA will call for a high level of technical knowledge and local awareness to ensure that funds are being appropriately utilized – such expertise resides in some multi-lateral organisations such as the UNDP.

Steps 5, 6 and 7: Implementing and Operationalizing the NAMA

Finally, after perhaps more than 1 year of planning, the NAMA is ready to implement and operationalize. The Gantt chart from Step 2 will guide the operationalization process.

These steps are grouped together because implementation and operationalization may run in parallel. Some key steps of implementation such as the creation of legislation to allow public private partnerships or private sector entities to enter into PPAs may need to be completed before interventions can be fully operationalized however some of the key operationalization activities such as preparation of intervention documentation, financing, applications for permits, EIA etc. can be undertaken or prepared in the meantime.

These stages will require the NAMA Coordinating Authority to work with each of the NAMA Partners to ensure that they start to deliver on their responsibilities as per the NAMA Design Document, MoUs and contracts and they will need to work with all .

The NAMA Coordinating Authority would be likely to maintain very close links with the line Ministries and the Office of the President. However it is not recommended that the NAMA Coordinating Authority be housed within one of the Ministries because the NAMA Coordinating Authority will have a significant role in determining whether or not NAMA Partners (including the Ministries) have fulfilled their obligations.

Approval of individual NAMA interventions - Drawing on the experience of the CDM, it is proposed that applications for individual NAMA interventions are approved by an independent technical panel made up of representative of national (and international) stakeholder groups. The remit of the approval panel is to assess specific NAMA proposals against the defined criteria. This should be a non-political body which addresses technical issues defined in the NAMA Design Document. The Approval Panel will be supported by the NAMA Secretariat and will be independent of the NAMA Coordinating Authority.

Previous experience with the CDM has demonstrated two different approval processes:

- 1) Validation and registration / verification and issuance. Under these approval processes, reports and recommendations from accredited independent entities were either approved or rejected by an independent Board. This proved a complex, time consuming and (at lower CER prices) a relatively expensive approval process however it delivered new levels of transparency and facilitated the development of what most consider to be a very successful emission reduction mechanism.
- 2) Host country Letters of Approval: Under the CDM, host countries were required to issue letters of approval without any other involvement in the project implementation and without any form of compensation for doing so. Efforts to recover costs or participate in a share of CERs were not generally popular and project developers complained when letters took a long time to deliver. More recently, procedures have been created to withdraw letters of approval, which has created distrust amongst project developers and the Government.

Under a NAMA, individual interventions would need to be approved. In the context of a rural electrification NAMA, such interventions might be for the creation of public private partnership interventions; private sector interventions (somewhat akin to individual CDM projects); or community based projects, each of which might involve the creation of renewable energy and grid infrastructure and household and commercial connections with various revenue raising models. In order to gain access to the funding and support under the NAMA, each of these individual interventions would need to be approved to ensure that, *inter alia*:

- a) They fulfil the eligibility criteria for inclusion in the NAMA;
- b) They are technically safe and sound to construct;
- c) They meet existing planning and operating conditions and for example, have completed regulatory EIA and stakeholder consultation processes etc.;
- d) The interventions are compliant with relevant legislation and regulations at a national and local level; and
- e) Interventions may also need to meet minimum safeguard standards from funding agencies such as human rights, labour rights, environmental safeguards and anti-corruption standards.

The NAMA intervention approval process must be appropriate and timely. It is proposed that the some NAMA Partners such as the Ministries are compensated indirectly for the successful operationalization of the NAMA and that Ministry staff have the potential to benefit in experience, expertise and career progression terms from the successful operationalization of the NAMA. It is proposed that the Ministry of Environment establishes a NAMA Secretariat to serve all Government approved NAMAs. The Coordinating Authority would receive applications from NAMA Partners for individual interventions in the form of a NAMA Design Documents and following a completeness check against defined eligibility criteria, forward these to a NAMA Approval Committee made up of technical experts drawn from relevant Ministries and stakeholder groups. The remit of the Approval Committee is to assess the individual NAMA interventions applications against the defined criteria and either approve or reject applications with justification. The Approval Committee could decide to request that interventions are independently validated against defined criteria (like under the CDM, in which case the Committee reviews the recommendation from the third party); or they could ask the NAMA Secretariat to undertake a review; or they form their own opinions. Once approved, interventions would be passed to the NAMA Coordinating Authority for operationalization under the agreed terms of the NAMA.

The NAMA Secretariat and Approval Committee may likewise wish to be involved in the verification of results before they are communicated to donors. Alternatively donors may be willing to accept reports directly from independent inspection and verification bodies.

Verification bodies have an important role to play in the successful operationalization of the NAMA. International donors are likely to expect independent verification of results. Verifiers are typically accredited against specific standards by accreditation agencies to perform verification against defined standards. There are at present no standards for the implementation and operationalization of NAMAs against which to verify and in any event, NAMAs may be too variable to capture in one standard. Therefore verification may need to be commissioned against NAMA specific eligibility criteria or deliverables, in which case the donors would be required to confirm the standards that they are willing to accept.

Review

It is important that there is a timetable and clear rules for periodic review of progress in order to identify any bottlenecks and if necessary to revise partnership contracts, roles and responsibilities and compensation agreements. Such a review might involve an assessment of progress by an independent body and meeting with the donor(s).

Step 8: Making the NAMA the baseline

The objective of the NAMA is to deliver long term mitigation of GHG emissions and sustainable development benefits and this can only be achieved if the new standards developed under the NAMA become common practice. In the case of a rural electrification intervention, the chances of users regressing to pre-NAMA behaviour are low because the benefits of access to electricity are so great. Problems could arise if suitable revenue collection models are not imposed or if there is significant theft of power etc. because there are costs associated with maintaining the physical infrastructure, but where renewable energy sources have been used, the costs of running the system are considerably lower. Therefore, the Government and the Ministries of Energy and Environment in this case, should ensure that resources are available to continue to maintain and supply rural electrification after the NAMA has been completed. As the funding for the NAMA is disbursed, the relevant Ministries should be making demonstrable progress on implementing and operationalizing suitable revenue recovery mechanisms.

Costs associated with the implementation of the NAMA

Implementation focuses on the creation of the institutional infrastructure required to enable the NAMA to be operationalized and is therefore distinct from, for example capital expenditure on rural electrification equipment. Implementation costs would start to accrue after the NAMA Design Document has been prepared and agreed between the President and the donors, so it does not include the costs associated with, for example workshops to conceptualize and design the NAMA, expert input, travel to meetings

etc. Similarly, implementation costs do not include *ex post* disbursements for successful operationalization of the NAMA activities. However, the exact boundaries of what would count as conceptualization / design, implementation and operationalization may be somewhat blurred.

The actual magnitude of the costs would vary depending on staff and overhead norms. Some activities could be outsourced to Private Sector suppliers in order, for example to reduce overhead and avoid a build-up of civil service or Government employees. The following table (Table 3) is designed to at least provide an idea of the order of magnitude of human resources and individual items that would need to be funded during the implementation phase. Human Resource costs would come with overheads including social costs, desk space, computers, communications etc. These costs are expected to be incurred in the 12 months following the signature of the NAMA Design Document and could be viewed as financial support to the receiving Government – with the exception of the NAMA Operationalization Agency if this is constituted outside the Government Ministries:

Table 3: Indicative FTE and one-off item costs for implementation phase of NAMA

	Full time equivalents (FTE)	One-off items (USD 000)
Office of the President		
NAMA Manager	0.5	
Host kick-off workshop and seminar		10
Ministry of Energy		
Rural Electrification Experts dedicated to NAMA Secretariat	2	
One representative on NAMA Approval Committee*	0.25	
NAMA Manager / coordinator	1	
Specialist input to prepare draft legislation including PPAs; grid connection; revenue collection (legal and constitutional advisors, consultants)		300
Specialist study to define baseline status of existing generation fleet and grid infrastructure		100
Ministry of Environment		
NAMA Manager / Coordinator	1	
Environmental Experts dedicated to NAMA Secretariat	2	
One representative on Approval Committee*	0.25	
Hosting NAMA Secretariat*	3	
Stakeholder workshops to train, raise awareness and attract proposals (3)		30
NAMA Secretariat Website, Publications and promotional material		10
Attendance at international workshops (2 * 3 people) e.g. regional workshops on NAMA development		30
Specialist input to develop policy, legislation and regulation (consultants, lawyers, constitutional advisors etc)		200
Specialist input to determine baselines for grid emissions, household emissions etc.		100
NAMA Coordinating Authority		
Staff*	6	
One-off costs to set up office		50
Outreach (local workshops, training and awareness raising)		50
Indicative totals	16 FTE	USD 880,000

* These items may be impacted up or down if more NAMAs are developed and use the NAMA Secretariat, NAMA Approval Panel and NAMA Coordinating Authority.

Conclusions

This desk-based narrative developed around the idea of conceptualizing, designing, implementing, and operationalizing a rural electrification NAMA in a notional Country X has demonstrated that this is a complex process requiring cooperation and active participation from multiple stakeholders. Experience has shown that trying to get multiple parties to work together to achieve defined goals in a cooperative framework is much more likely to succeed when parties' interests are aligned. The NAMA concept provides a mechanism whereby donor funding can be judiciously applied and distributed to NAMA Partners at least partially on a payment-by-results basis. Remaining finance will need to be provided up front and that donors will need to bear the associated risks.

Many lessons can be learnt from recent experience with the CDM. In particular, there are valuable lessons to be learnt from features which promote:

- Transparency
- Measurement, reporting and verification of results
- Effective and efficient approval processes
- Broad stakeholder participation
- Integration of development objectives with goals and priorities of Government Ministries
- Participation of the private sector investors, communities, and public private partnerships.

Understanding the roles and responsibilities of the NAMA Partners will help to conceptualize and design a successful NAMA.

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