

NS-203 - Detailed Study of Sustainable NAMA Financing Mechanism for Reactivating Renewable Energy-based CDM Project Activities in Malaysia

Malaysia

NAMA Seeking Support for Preparation

A Overview

A.1 Party

Malaysia

A.2 Title of Mitigation Action

Detailed Study of Sustainable NAMA Financing Mechanism for Reactivating Renewable Energy-based CDM Project Activities in Malaysia

A.3 Description of mitigation action

Malaysia is one of the non-Annex 1 Parties at the forefront of CDM activities, having submitted a total of 253 CDM projects and 9 Programmes of Activities (PoAs) with 14 Component Project Activities (CPAs) as at April 2015. Of these numbers, 143 CDM projects and 5 PoAs with 10 CPAs have been registered with the CDM Executive Board, while 18 CDM projects and 4 PoAs are still at the validation phase of the CDM cycle. Based on the number of registered projects, Malaysia ranks 8th in the global hierarchy of CDM project pipeline, accounting for 1.9% of the total.

Like all other non-Annex 1 Parties hosting CDM projects, Malaysia's CDM activities have been much curtailed due to sharp decline of the carbon market attributed to uncertainty about the future global climate regime. Besides inactivity in validation, verification activities have largely been sporadic since 2012, essentially due to lack of demand for CERs and current carbon prices are untenable vis-à-vis the transaction costs. Without this revenue source, the cash flow of many projects has been severely affected, except for a handful of project activities with sufficient revenue-generating outputs other than solely dependent on CDM benefits still able to sustain their operations, albeit partially in some cases. As a result, most CDM activities have been terminated or very much limited due to the high monitoring and transaction costs. With the carbon market in the doldrums, substantial slowdown in CDM activities has led to the exit of CDM players and termination of emission reduction purchase agreements (ERPAs) by most CER buyers. Projects that were designed and managed by CDM consultants, and projects that were developed on BOOT basis, have been unable to sustain or have been abandoned with the withdrawal of the consultants and investors, as the project host companies lack such expertise and experience. The current scenario has resulted in a general loss of interest and confidence of the private sector in CDM.

A preliminary study supported by the Low Emission Capacity Building (LECB) Project in 2014-2015 revealed the bulk of the CDM project activities in Malaysia are associated with renewable energy (RE). These include RE generation and utilisation, involving biomass energy from agro-based residues, methane capture

and destruction from landfill gas and palm oil mill effluent (POME), and hydropower. For POME, there is an ongoing initiative, known as the Palm Oil National Key Economic Area-Entry Point Project 5 (NKEA-EPP5) under Malaysia's Economic Transformation Programme, which is aimed at all palm oil mills to capture methane gas from POME treatment to be utilised as a fuel source, with a set target to achieve 100% compliance by all the mills to have implemented biogas projects by 2020. During the stakeholder consultation process of designing the NAMA, a concern was expressed of possibly creating discrimination and complication among CDM and non-CDM projects on POME methane recovery projects in the context of implementation of the Palm Oil NKEA-EPP5. To address this concern, methane capture from POME treatment is excluded for the purpose of this NAMA. Collectively, the remaining RE-related project activities account for 35.4% of Malaysia's CDM pipeline, or 38.5% of the registered projects. These projects possess immense potential to deliver significant mitigation impact, both sector-wide and nationwide, upon rejuvenation in line with the objectives of the National Renewable Energy Policy and Action Plan 2010 and other related policies. The mitigation impact is two-fold: direct GHG emission reduction via methane avoidance and destruction, and utilisation of RE generated to displace fossil-based energy sources. It is envisaged that this mitigation action will contribute positively to Malaysia's voluntary pledge of reducing its emissions intensity of GDP by up to 40% by 2020 based on 2005 levels, conditional upon technology transfer and financial support of adequate and effective levels.

The LECB-supported study, undertaken via a consultative approach, outlined a preliminary NAMA framework that aims to provide support for reactivating CDM projects whose activities pertain to the generation, application and utilisation of RE. The NAMA framework identified three main inputs: (1) existing policies, strategies and initiatives already in place and relevant to the action to be implemented; (2) new domestic initiatives to be introduced specifically for creating market demand for CDM project outputs, namely RE generated by the project activities; and (3) international support to be solicited in terms of technological and financial solutions for new RE applications. The support required is considered in four perspectives:

- Policy support – Policy instruments and action plans that have been formulated by the government to propel the development and growth of renewable energy and to capitalise on biomass resources in downstream value creation. These are of direct relevance to the prioritised CDM project types to be covered in the NAMA.
- Finance support – This includes financing instruments and prospective revenue which are ready to be tapped by the various project activities pertaining to the target CDM projects, and new financing initiatives which may need to be introduced in order to provide effective support to the CDM activities being targeted.
- Technology support – Certain modifications of project design, operation and diversification of activity outputs and products may need to be executed in order to breathe life into the project activities through enhancing their financial viability. The need of technology transfer in this respect from international support is much anticipated.
- Capacity building support – Capacity building is needed in the face of introducing new measures, initiatives and

technology into realising the NAMA's objectives and targets.

This proposal aims to conduct a detailed study on the proposed NAMA framework above, including the inputs and support required for reactivating the RE-based CDM project activities. The output is a detailed NAMA proposal seeking support for implementation. Activities to be undertaken are as follows:

1. A detailed assessment of the targeted CDM project types, namely biomass energy, hydropower and landfill gas, vis-à-vis the current scenario of the related business sectors in particular, and the development of renewable energy as a fuel source in general.
2. Identification of activities for design of the NAMA framework and formulation of the implementation plan and approaches including MRV system.
3. Prioritisation of project activities in accordance with a set of eligibility criteria for seeking support under the NAMA to be formulated under the study based on their status in the CDM project cycle and the type of funding support received. This includes registered projects in operation but without CER issuance, registered projects with CER issuances, registered projects yet to be operationalised, length of the remaining crediting period, projects with expired crediting period, and projects still in the validation stage.
4. Estimation of the cost of implementation and specific support needs, potential GHG emission reductions achievable, and time frame for the action.

A.4 Sector

<input checked="" type="checkbox"/> Energy supply	<input type="checkbox"/> Transport and its Infrastructure
<input type="checkbox"/> Residential and Commercial buildings	<input type="checkbox"/> Industry
<input checked="" type="checkbox"/> Agriculture	<input type="checkbox"/> Forestry
<input checked="" type="checkbox"/> Waste management	
<input type="checkbox"/> Other <input type="text"/>	

A.5 Technology

<input checked="" type="checkbox"/> Bioenergy	<input checked="" type="checkbox"/> Cleaner fuels
<input type="checkbox"/> Energy Efficiency	<input type="checkbox"/> Geothermal Energy
<input checked="" type="checkbox"/> Hydropower	<input type="checkbox"/> Solar Energy
<input type="checkbox"/> Wind Energy	<input type="checkbox"/> Ocean Energy
<input type="checkbox"/> Carbon Capture and Storage	<input type="checkbox"/> Low till / No till
<input checked="" type="checkbox"/> Land fill gas collection	
<input type="checkbox"/> Other <input type="text"/>	

A.6 Type of action

<input type="checkbox"/> National/ Sectoral goal	<input type="checkbox"/> Project: Investment in machinery
<input type="checkbox"/> Strategy	<input type="checkbox"/> Project: Investment in infrastructure
<input checked="" type="checkbox"/> National/Sectoral policy or program	<input type="checkbox"/> Project : other
<input type="checkbox"/> Other <input type="text"/>	

A.7 Greenhouse gases covered by the action	<input checked="" type="checkbox"/> CO2	<input checked="" type="checkbox"/> CH4
	<input type="checkbox"/> N2O	<input type="checkbox"/> HFCs
	<input type="checkbox"/> PFCs	<input type="checkbox"/> SF6
	<input type="checkbox"/> Other <input type="text"/>	

B National Implementing Entity

B.1.0 Name	Ministry of Natural Resources and Environment Malaysia
B.1.1 Contact Person 1	Jaya Singam Rajoo
B.1.2 Address	Environmental Management & Climate Change Division Ministry of Natural Resources and Environment Level 6, Wisma Sumber Asli, Presinct 4, 62574 Putrajaya, Malaysia.
B.1.3 Phone	
B.1.4 Email	jayasingam@nre.gov.my
B.1.5 Contact Person 2	Gary William Theseira
B.1.6 Address	
B.1.7 Phone	
B.1.8 Email	gtheseira@nre.gov.my
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 preparation of the mitigation action

C.1	Number of months for completion	8
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D Currency

D.1	Used Currency	<input type="text" value="AED"/>
		Conversion to USD: 1

E Cost

E.1.1 Estimated full cost of preparation	100000
E.1.2 Comments on full cost of preparation	<p>The cost covers the required technical support for undertaking the detailed study as described in section A.3 and preparation of the formal NAMA Design Document after a stakeholder consultation process. The breakdown is as follows:</p> <p>a) Consultancy: 15,000/man-month x 5 man-months = 75,000</p> <p>b) Stakeholder consultation events: 10,000/event x 2 events = 20,000</p> <p>c) Local travel expenses (lump sum) = 5,000</p>

F Support required to prepare the mitigation action

F.1.1 Amount of Financial support	100000
F.1.2 Type of required Financial support	<input checked="" type="checkbox"/> Grant <input type="checkbox"/> Loan (sovereign) <input type="checkbox"/> Loan (Private) <input type="checkbox"/> Concessional loan <input type="checkbox"/> Other <input type="text"/> <input type="checkbox"/> Guarantee <input type="checkbox"/> Equity <input type="checkbox"/> Carbon finance
F.1.3 Comments on Financial support	Financial support represents the full cost of preparation as per section E.1.1, to engage consultant to undertake the study and to

complete the NAMA design document. Domestic in-kind contribution will be provided to support the study.

F.2.1 Amount of Technical support

F.2.2 Comments on Technical support

F.3.1 Amount of capacity building support

F.3.2 Type of required capacity building support

<input type="checkbox"/>	Individual level
<input type="checkbox"/>	Institutional level
<input type="checkbox"/>	Systemic level
<input type="checkbox"/>	Other <input type="text"/>

F.3.3 Comments on Capacity Building support

F.4 Financial support required

F.5 Technological support required

F.6 Capacity support required

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

G.1 Relevant National Policies

- National Renewable Energy Policy and Action Plan 2010: The policy strives to enhance the utilisation of indigenous RE resources to contribute towards national electricity supply security and sustainable socio-economic development.
- National Green Technology Policy 2009: The policy aims to promote green technology as a driver to accelerate the national economy and enhance sustainable development.
- Renewable Energy Act 2011: The act provides for the establishment and implementation of a special tariff system to catalyse the generation of RE, ushering in the Feed-in Tariff (FiT) scheme aimed at augmenting the share of RE in the power generation fuel mix from indigenous RE sources.
- National Policy on Climate Change 2009: The policy aims at, inter alia, mainstreaming climate change through wise management of resources and enhanced environmental conservation resulting in strengthened economic competitiveness and improved quality of life.

G.2 Link to other NAMAs

H Attachments

H Attachments

Title	Description
Letter to UNFCCC NAMA Registry.pdf	Letter of Endorsement from the Ministry of Natural Resources and Environment Malaysia

H.1 Attachment description

H.2 File

I Support received

I.1 Outside the Registry

Preparation of this NAMA document was funded by the Low Emission Capacity Building Project (LECB) in Malaysia implemented by the Ministry of Natural Resources and Environment Malaysia and United Nation Development Programme (UNDP). LECB-Malaysia is part of the UNDP-LECB Global Programme is supported through contributions by the

European Commission, the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, and the Government of Australia.

I.2 Within the Registry

Support provided	SupportType	Amount	Comment	Date
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