



## [REPORT TASK P-I.6.1&I.6.2] NAMA DESIGN OPTIONS FOR THE CEMENT SECTOR IN VIETNAM&SUPPORTING REGULATORY FRAMEWORK

### EXECUTIVE SUMMARY

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The report presents the outcomes of the Consultant's work on two subtasks: I.6.1 'Types and requirements of the NAMA' and I.6.2 'NAMA framework'.

#### **Types and requirements of the NAMA**

The main objective of subtask I.6.1 is to introduce the concept of a NAMA, define NAMA types, NAMA elements and requirements to these elements under various NAMA types. This part of the report is based on the hands-on experience of the authors and ongoing work of the Consortium members on designing sectoral NAMAs in Asia and the Pacific, Latin America and Africa as well as review of existing NAMA literature.

The term 'Nationally Appropriate Mitigation Actions', or NAMAs, was first introduced in 2007 at the United Nations Framework Convention on Climate Change (UNFCCC) Conference of Parties (COP) meeting in Bali. NAMAs are voluntary actions aimed at reducing greenhouse gas (GHG) emissions in developing countries while achieving sustainable development (SD) impacts and respecting alignment with the national policy, institutional and regulatory frameworks.

In other words, a NAMA is a mechanism defined under the international climate policy process that allows developing countries to catalyse domestic actions in support of their key domestic policy objectives within different economic sectors under the condition that such actions make substantial, quantifiable contributions to climate change mitigation related impacts, which can then be tracked and evaluated by national and international stakeholders involved in the climate policy process, depending on the specific agreements and with a fair degree of flexibility.

A NAMA thus represents an opportunity to achieve a set of important results (related to key domestic policy objectives and climate mitigation) via a collaborative approach (collaboration in terms of inter-ministerial cooperation and international collaboration). The opportunity is not only related to policy objectives but it also creates commercial opportunities for the economic entities active in the sector that is targeted by a NAMA.

NAMAs can vary dramatically in terms of their scope, content, level of stringency and monitoring, reporting and verification arrangements, as there are not internationally agreed rules on NAMAs. Furthermore, they can be undertaken in a broad

range of sectors, can incorporate policy-level provisions, programmatic or simple project scopes, and while should be generally developed at national level can also be focused in a subnational, regional or local area.

### NAMA design elements

There are no concrete criteria defined under the UNFCCC for NAMA design elements (or building blocks), and the structure of the NAMA is purposely flexible. But for practical reasons, the international climate experts and practitioners<sup>1</sup> (including the Consultant team, GIZ through its NAMA Tool, the NAMA Facility and the GCF through their proposal requirements, etc.) are developing procedures and standardization around the NAMA structure. Many countries that prepare NAMAs are already using these approaches. Therefore, the Consultant recommends that a NAMA design should consist of the following elements:<sup>2</sup>

- **NAMA objectives, mitigation actions and enabling activities:** its overall **objective** and **scope/boundaries** (the economic activities and entities targeted by the NAMA), the mitigation actions and enabling activities<sup>3</sup> to be pursued; the GHG emission reduction and SD **targets**; the policy target (i.e., how the NAMA will contribute to achieving the national policy objectives);

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<sup>1</sup> See for example: South Pole: <http://mitigationpartnership.net/south-pole-2011-how-develop-nama-scaling-ongoing-programmatic-cdm-activities-road-poas-namas>; GIZ NAMA Tool: <http://mitigationpartnership.net/nama-tool-steps-moving-nama-idea-towards-implementation>; NAMA Facility recommendations on NAMA design: <http://www.namafacility.org/conceptandapproach/nama.html>; UNDP/UNFCCC/UNEP 2013: Guidance for NAMA Design: [http://namapipeline.org/Publications/Guidance\\_for\\_NAMA\\_Design\\_2013\\_.pdf](http://namapipeline.org/Publications/Guidance_for_NAMA_Design_2013_.pdf), OECC NAMA Guidebooks (2014, 2015): <http://www.oecc.or.jp/english/index.htm>.

<sup>2</sup> The Consultant notes that the design of some of NAMA elements (i.e. NAMA M&E system or NAMA risk management strategy) is not included in the scope of this project.

<sup>3</sup> By **mitigation actions** the authors understand actions that have direct impact on emission reductions, whereas **enabling activities** are interventions that create favourable conditions for the uptake of mitigation actions (e.g. policies, incentives, MRV system, capacity building or technical assistance activities), which therefore have indirect impact on emission reductions.

- **NAMA baseline:** GHG and SD baseline assessment that will be required to draw the business as Usual (BAU) and the mitigation scenarios, so appropriate NAMA targets and key performance indicators (KPIs)<sup>4</sup> can be identified for the next steps;
- **NAMA MRV system:** the comprehensive monitoring, reporting and verification (MRV) system that will track: (i) the GHG emission reduction impact; (ii) the SD impacts (environmental, economic and social (also referred to as “co-benefits”); (iii) the efficiency of the investment/support (MRV of finance). The NAMA should also incorporate a NAMA monitoring and evaluation (M&E) system to track and evaluate the impact of the proposed mitigation actions and enabling activities; continuous improvement process (CIP) indicators; and metrics to track transformational impact; to be in line with the most advanced international best practices;
- **NAMA regulatory and institutional framework:** defines how the NAMA will ensure alignment with domestic policy objectives, the legal and regulatory framework, and the NAMA institutional setup that will define and govern NAMA operations in relation to: a) the entities that are expected to implement mitigation actions, b) the interaction and roles of involved (domestic) government entities to ensure alignment with domestic policy objectives, and c) international supporters. In addition, it describes the set-up, operating model for the NAMA Operating Unit;
- **NAMA financial architecture:** NAMA business plan and incentive structure to encourage participation in NAMA MRV

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<sup>4</sup> KPIs will have to follow as much as possible the SMART principles (<http://www.litcorp.com/content/kpi-s-m-r-t-rule>).

activities and implementation of mitigation actions. Such incentives can include command & control measures (part of regulatory & institutional framework), financial and market-based (e.g. carbon market) incentives. It describes how the provision of incentives is re-financed, disbursed, replenished, how cash-flow is managed, and fiduciary and guarantee procedures are set up;

- **NAMA needs assessment / risk management strategy:** technical, institutional, regulatory, policy/political, social and financial needs to reach implementation, with a focus on risk mitigation and contingency plans; and capacity building gap analysis;
- **NAMA implementation roadmap:** work plans, timelines and budgets for each action;
- **NAMA capacity development strategy:** the capacity building and trainings plan to close capacity gaps defined above on NAMA operation & management, MRV and M&E system, required policy/regulatory interventions, accessing international climate finance and donors requirements to support the NAMA; and other issues.

### NAMA types and related regulations

International climate process under the UNFCCC decisions differentiates between two types of NAMAs depending on the source of their funding:

- **Unilateral or domestic NAMAs:** financed and implemented domestically.
- **Supported NAMAs:** receiving financial, technical and/or capacity-building support from international donors<sup>5</sup> (international development institutions, climate and

clean energy funds and facilities, governments of developed countries, foreign banks and foreign private companies). Supported NAMAs typically also include a domestic finance component.

A NAMA can also be integrated with carbon finance instruments, for example New Market Mechanisms (NMM), a concept already introduced - but not yet specified - within the international climate policy process under the UNFCCC. A NMM approach could be based on existing carbon market models, such as Clean Development Mechanism (CDM) or voluntary carbon market standards, but operated under the regulatory authority of a NMM implementing country. The discussions on NMMs under the UNFCCC are ongoing, and no standards or requirements have been adopted so far.

A NAMA using a market-based mechanism can still be considered a domestic or supported NAMA as long as the carbon credits originated within such a scheme are used to contribute towards the domestic GHG emission target of the NAMA operating country, including targets set for domestic sub-national levels or even at entity level. If carbon credit units are used to contribute to GHG emission targets in other, third party jurisdictions, the NAMA would be referred to as a **“credited NAMA”**.

In reality, it is not easy to make a clear distinction between different NAMA types. For example, NAMA design and readiness stage can be funded domestically, while implementation should be financed (at least in a very significant proportion) from national (public and private) sources.

Most often, the same NAMA has both unilaterally-funded and supported elements, as finance comes from various sources interested in supporting specific NAMA interventions. Support may also be linked to a certain level of ambition, e.g. mitigation actions up to a certain benchmark could be domestically funded while anything beyond would be eligible for international funding.

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<sup>5</sup> Existing and potential international sources of NAMA finance, which could be considered for the cement sector NAMA in Vietnam, are analyzed under subtask I.7.1.

In the Consultant's view, it's better to differentiate already during the design stage, which NAMA design elements, which mitigation actions or enabling activities can be financed at the national level and which need additional international support.

### Design options for the cement sector NAMA in Vietnam

The applicability of different NAMA types for the Vietnamese cement sector has been assessed based on NAMA lessons in other countries and the inputs from other subtasks of this project.

Before MOC takes a decision, whether the cement sector NAMA should be unilateral, supported or could be linked to the international carbon market, it's important to assess what drives the suitability of one NAMA type against another for Vietnamese cement industry. The arguments should include:

- **Administrative feasibility:** is Vietnam cement industry able to meet the reporting requirements of the international supporters?
- **Availability of funds:** availability of domestic funding vs. availability and requirements of international donors to fund mitigation actions in the cement industry, based on the results of subtasks 1.7.1, 1.7.2, 1.7.4, and especially 1.7.5.
- **Governance:** the implications of operating a supported NAMA in the governance realities of Vietnam: NAMA supporters will demand a participation in the oversight of a NAMA under their requirements and the question is whether these are acceptable for government entities on the national and provincial level, and for the cement companies.

Stakeholder meetings in Hanoi in March and July 2015 showed that governmental authorities in Vietnam are highly interested in seeking international support for implementation of the cement sector NAMA with the envisioned share of foreign finance for NAMAs in the country to be

80% (as stated by MPI)<sup>6</sup>. In Consultant's view this target is very ambitious. Usually, support from international donors just creates favourable environment to leverage money from domestic private sources.

In Consultant's experience, in order to attract finance for NAMA implementation from foreign sources, first of all, commitment and action at the national level are essential. International donors are more interested in projects that have strong political support and are co-financed from domestic sources or projects that are already at advance stages of development (this a key criterion of NAMA Facility, for instance).

It is, therefore, recommended to design and establish a proper framework for the cement sector NAMA in Vietnam before applying for international NAMA implementation funding with at least the following elements in place: NAMA managing mechanism; institutional structure including NAMA Operating Unit; data collection and MRV system that meets the expectations of the international donors; NAMA Finance Unit responsible for aggregation of funds from various sources and their disbursement, enabling regulatory environment and incentive structure for mitigation actions.

When designing a NAMA, it is advisable to assess, which NAMA elements will have to be developed and financed domestically, and which can seek international support. International donors (international development institutions, climate and clean energy funds, governments of developed countries and international banks) would be more willing to support only specific NAMA elements or mitigation actions above the certain benchmark level rather than an entire NAMA. The effort of linking mitigation actions and enabling activities for the Vietnamese cement sector NAMA with certain sources of domestic and

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<sup>6</sup> See report on international mission to Hanoi on 6-10 July 2015 in Annex II. The feasibility of the 80% foreign support for the NAMA will be assessed in more details in a combined report under subtasks 1.7.2-1.7.3-1.7.5.

international support will be taken under subtask I.7.5 'NAMA Financial Plan'.

This report also introduces two convenient formats for presenting the concept of NAMA cement and main NAMA design elements (NAMA Framework) to different stakeholders: policymakers in Vietnam, international NAMA donors, as well as the main implementers of NAMA activities – the cement companies. These formats are: 1) **NAMA Outline template** recognizable by the climate policymakers and international donors and 2) **NAMA Opportunity Canvas** that will be understandable for non-climate related audience (the cement companies) more familiar with business plan (business opportunity) format (see templates below).

First drafts of NAMA Outline and NAMA Opportunity Canvas will be included in reports under Task I.9. 'Preparation of Baseline and Option Study and Preliminary Readiness Plan', when all NAMA design elements will have been defined. The final version of both products will be presented in the Final Readiness / Final NAMA Framework Report (Task III.3).

### **NAMA regulatory framework**

The main outcome of subtask I.6.2 is a proposed regulatory framework to support the cement sector NAMA in Vietnam and recommended actions how to close the existing policy gaps to create enabling environment for the NAMA. To achieve this objective, the following activities have been undertaken:

1. Analysis of policy/regulatory options that could address the existing policy gaps and other barriers for up-scaling mitigation actions in the sector (based on subtasks I.5.1a and I.5.4);
2. Impact assessment of different existing or proposed policy/regulatory interventions by the Government of Vietnam and their benchmarking against the existing international policies described under subtask I.5.1b;

3. Recommendations on the policy/regulatory options to be taken by the Government of Vietnam under the cement sector NAMA;
4. Consultations with MOC and other relevant policymakers in Vietnam to discuss the applicability of the proposed policy/regulatory options, their possible design including scope and eligibility criteria (type and size of the entity, technologies to be covered, etc.), implementation arrangements, operation procedures, sources of finance as well as possible barriers for their implementation and how to overcome them.
5. Detailed NAMA regulatory framework – a summary of the policy/regulatory options and instruments identified as a result of the carried out assessment and stakeholder consultations.

### **Current ('as is') policy/regulatory interventions for GHG emissions mitigation in the cement sector in Vietnam**

The Consultant has summarised the existing policy and regulatory interventions for GHG emissions reductions in the cement sector in Vietnam, identified under subtask I.5.1a, in Section 4.1 and presented this 'as is' policy picture in a table format.

The current policy/regulatory interventions in the table are grouped by their relevance to the priority mitigation actions suggested as a result of subtasks I.5.2 'Various mitigation action for the cement sector' and I.5.3 'Marginal abatement cost (MAC) curve for identified mitigation actions':

- Thermal energy consumption and efficiency, electric energy efficiency,
- Fuel switch and alternative fuels,
- Lowering the clinker content in cement,
- Efficient use of cement.

In addition, the Consultant has assessed policies related to:

- GHG emission reduction targets and MRV system,
- Information provision and capacity building; R&D support.
- Other policies/regulations.

The table includes such columns as ‘Barriers and gaps’ with description what prevents policy integration and “Recommended actions” with concrete recommendations how to overcome existing barriers and close the gaps.

The key observation is that Vietnam has not yet developed an integrated climate mitigation regulatory framework for the cement sector. Vietnam’s Green Growth Strategy (VGGs), Vietnam’s Green Growth Action Plan (VGGAP), Vietnam’s BUR and emerging INDC co-exist with lack of coordination. Vietnam’s National Climate Change Strategy (VCCS), National Action Plan on Climate Change for the period 2011-2020 (VCCAP) and National Target Program to Respond to Climate Change (NTP-RCC) are focused mostly on climate change adaptation activities. Related policies, such as the National Targeted Program for Energy Efficiency (VNEEP) for 2012-2015, Law on Energy Saving and Conservation, Master Plan for Development of Vietnam Cement Industry, as well as performance standards do not have references to climate policies. The result is a fragmented policy picture.

Moreover, the existing policy measures in the first place aim at energy efficiency improvement. There are no clear objectives for other important CO<sub>2</sub> mitigation drivers in the cement sector: alternative fuels and clinker content reduction in cement.

### **Desired ‘to be’ regulatory framework for the cement sector NAMA in Vietnam**

Setting up a cement sector NAMA provides an opportunity to integrate fragmented policy/regulatory interventions for mitigation actions in Vietnam and strengthen them under the

robust regulatory (and institutional) NAMA framework.

Section 4.2 of this report suggests the structure of the desired (‘to be’) regulatory framework for the cement sector NAMA in Vietnam, which should aim at reaching the following objectives:

- GHG emission reductions,
- improvement of thermal and electrical energy efficiency,
- deployment of alternative fuels,
- reducing the clinker content in cement,
- increasing efficient use of cement, deployment of BATP and phasing out old technologies,
- improving the profitability of the cement companies,
- setting up NAMA framework (MRV system, NAMA regulatory & institutional arrangements including NAMA Operating Unit, NAMA Financial architecture, etc.) and improving Vietnam’s competitiveness on the international ‘market’ for NAMA support.

The achievement of such objectives could be enabled with:

- **setting up sectoral targets or standards** based on already existing regulatory documents (legally-binding or voluntary, but enhanced with an incentive structure);
- **introducing a sector-level MRV system** with detailed provisions on KPIs to assess the achievement of abovementioned targets/standards, as well as SD benefits and financial support flows; data collection,

monitoring, reporting and verification procedures; and responsibilities of all NAMA actors in relation to MRV;

- **developing penalties & incentives scheme** (financial, market-based, as well as command & control measures) for the companies to implement and monitor their mitigation actions, as well as report on their performance according to MRV procedures;
- **setting up effective inter-ministerial cooperation mechanisms** for establishing NAMA regulatory framework and managing NAMA implementation;
- **assessing possible regulatory/institutional barriers and risks** for achieving of the stated objectives and **developing risk mitigation strategy**;
- **providing capacity development and other support activities** to government entities involved into NAMA managing and especially NAMA implementers (cement factories) explaining the concept of the NAMA, the most promising mitigation options, data collection, baseline setting and reporting requirements, the new regulatory framework including available incentives/penalties to encourage cement plants' mitigation actions, available sources of financial, technological or capacity building support and how to get it.

The Consultant has suggested policy/regulatory steps to be taken by line ministries in Vietnam on the pathway from the existing regulatory picture in the cement sector to the desired one.

The reports under other tasks of this project and stakeholder consultations in Vietnam have revealed a number of barriers/constraints for developing an efficient regulatory framework for NAMA cement in Vietnam. The major barrier, in the Consultant's view is that the line ministries and the industry do not have deep understanding of the need for GHG emission reductions and climate mitigation potential in the sector, existing sources of support for emission mitigation actions, as well as international climate change and particularly NAMA process. There is a strong need to build awareness of the key stakeholders in the country on these issues, explain the benefits of participating in NAMA for them, and enhance cooperation on developing enabling framework for NAMAs in general and cement NAMA in particular. This will help to improve competitive position of Vietnamese NAMAs on the international "market" for NAMA support.

The involvement of other stakeholders into designing NAMA framework is also important for qualifying and quantifying the contribution of mitigation actions in the cement industry to key policy objectives under their control and establishing a mutually beneficial model for cooperation, which is driven by the realization of joint opportunities ("win-win").

The following actions are suggested to be taken by MOC in coordination with other key ministries (MOIT, MPI, MOF, MONRE, MARD and others), with assistance of the Government office where necessary, in order to overcome this and other barriers:

1. Develop a clear picture of the future NAMA cement (NAMA Framework), its objectives, targets, anticipated benefits for the involved stakeholders, key mitigation actions and required enabling activities. NAMA Framework can be presented to the key stakeholders in Vietnam using NAMA Outline template and NAMA Opportunity Canvas as suggested in this report.
2. Prepare an official document with clearly defined roles of various line ministries,

industry and other stakeholders in designing and implementing the cement sector NAMA in Vietnam, description of the functions, processes and financial transfers required for NAMA operation. Such document should be based on the outcomes of this project.

3. Prepare and sign cooperation agreements (joint circulars) with the line ministries that explain why such cooperation would be mutually beneficial and how this cooperation could be implemented;
4. Enhance the inter-ministerial NAMA mechanism (e.g. through the already existing NAMA Steering Committee – discuss this issue with MONRE and involve the Government office, if needed);

Communicate the results of the MAC curve exercise complemented with the analysis of barriers that impede the implementation of the identified negative cost mitigation potential (subtasks 1.5.2-1.5.4) to MONRE as quickly as possible and be more actively involved into INDC process to make sure that the Vietnamese INDC takes the results of the developed MAC curve into account. The cement NAMA could create substantial domestic benefits (not related to mitigation) if properly prioritized and supported. It needs to be made clear that on the one hand, Vietnam strongly supports this NAMA; but that at the same time, international support is needed in order to develop it, and that international support will be catered only if the NAMA mitigation objective reaches the necessary level of ambition.



## Annexes

### NAMA Outline template for climate policy experts and donors

NAMA Title	
Objective:	
Summary	
Structure	NAMA Objective: NAMA-level Objective (linked to policy) NAMA Scope: Boundaries of the program NAMA Activities, Actions, and related Objectives
Eligibility criteria	
Program M&E (KPIs & Targets)	
MRV of GHG emission reductions, SD and finance	
Baseline and mitigation scenarios	
Institutional & regulatory framework	
Financial architecture	
Needs assessment / Risk management	
Implementation roadmap	
Capacity development strategy	

Source: South Pole Group "NAMA Toolkit 2.0", 2015

## Generic NAMA Opportunity Canvas

<p><b>What are the key domestic objectives, problems, needs or desires that are to be addressed?</b></p> <p>Which national policy objectives fall into the scope of a NAMA?</p> <p>What are the key impacts to the national policy objectives that a NAMA can make?</p>	<p><b>Who is responsible for providing solutions (prioritize those for whom this is the most central/important)?</b></p> <p>Who will be willing/able to pay to have NAMA in place?</p> <p>Who are the key NAMA beneficiaries?</p>	
<p><b>What is the proposed design of a NAMA (in terms of providing a solution to solving these problems/contributing to achieving these relevant policy objectives?)</b></p> <p>How NAMA elements should be designed?</p> <ul style="list-style-type: none"> <li>- Creation of incentive mechanisms: a new solution to organise the transfer of resources from those who benefit to those who produce the impact;</li> <li>- Financial mechanism/architecture using results-based approach (money for impact);</li> <li>- NAMA MRV and M&amp;E system, KPIs;</li> <li>- Demonstrate the mitigation benefit of a NAMA.</li> </ul>		
<p><b>What resources and capabilities would a NAMA operating office need to implement this solution (within a NAMA framework)?</b></p>		
<p><b>Which resources and capabilities exist already?</b></p> <p>Assess current policy, regulatory, institutional capabilities and financial resources available for NAMA against NAMA requirements</p>	<p><b>What resource and capabilities can be added internally?</b></p> <p>What are the functional requirements of a NAMA operating office?</p>	<p><b>What resource and capabilities need to be provided by domestic and international partners?</b></p> <p>Which measures should be taken to close policy, regulatory, institutional and financial gaps?</p> <p>Who will implement these measures and provide financial and technical support?</p>
<p><b>What are the costs of operating?</b></p> <p>NAMA budget (cost of NAMA actions and activities to achieve the set objectives)</p>	<p><b>What are the key sources of revenue?</b></p> <p>NAMA financial architecture including domestic and international sources of finance (state budget, funds, international donors, user fees, etc.)</p>	
<p><b>What are the measures of success and how are they measured and reported?</b></p> <p>Identify KPIs (established with the context of designing the MRV / M&amp;E system)</p>		

*Source: South Pole Group 'NAMA Toolkit 2.0', 2015*

The report was developed under the framework of the Nordic Partnership Initiative Pilot Programme for Supporting Up-scaled Climate Change Mitigation Action in Vietnam's Cement Sector.

The Nordic Partnership Initiative (NPI) established in December 2011 to support climate change mitigation efforts in developing countries and funded by Denmark, Finland, Iceland, Norway and Sweden. The budget of the NPI Programme in Vietnam is €1.6 million, and it is financed by Nordic Development Fund (NDF) and the Ministry of Construction of Vietnam. The implementation of the Vietnam cement sector Pilot Programme started in March 2014, by a consortium led by NIRAS A/S (Denmark) in collaboration with Perspectives GmbH, South Pole Group, VNEEC JSC and NIRAS Vietnam.

For more information on the project and the full report, please contact:

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