

# NORDIC PARTNERSHIP INITIATIVE PILOT PROGRAMME FOR SUPPORTING UP- SCALED CLIMATE CHANGE MITIGATION ACTION IN VIETNAM'S CEMENT SECTOR





# Quarterly Report Report No. 2 May – July 2014

Submitted to

### **Ministry of Construction**

Department of Science, Technology and Environment (DSTE)











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#### 1 Introduction

The 27<sup>th</sup> January 2014 a contract was signed between MOC and the Consortium. The consortium consists of 5 companies – NIRAS, South Pole, Perspectives, VNEEC and NIRAS-Vietnam (RCEE\_NIRAS). The contract period runs from primo 2014 to primo 2016.

The second quarter of the project is from May to July 2014. During this period, the project team has been working on both desk studies including institutional review and MRV analysis, and low carbon survey including site visit to two cements plants..

#### 2 MAIN ACHIEVEMENTS OF THE SECOND QUARTER

The main activities and products in the second quarter:

## 2.1 Conducting Low Carbon Survey in Ha Tien 1 and Holcim cement plants in Kien Giang province (0.7.1)

A survey of already on-going low carbon projects in the cement sector in Vietnam, covering Ha Tien 1 and Holcim cement plants in Kien Giang province has been conducted during week 31 (28/7 - 31/7). The experience from these plants are important as an input to the future development of this project.



Figure 1: The survey team and MOC delegate visit Holcim cement facility in Kien Giang province.



Figure 2: The kiln and preheater in Ha Tien 1 cement facility in Kien Giang province.

In this assignment the survey team, coordinated by Mr. Nguyen Tuan Anh (National cement expert), consisting of relevant experts from VESCO (subconsultant) has:

- Conducted desk study of the International experiences in low carbon options in Cement Industry.
- Conducted interview with key manager and site visit in Holcim and Kien Giang cement plants
- Assessed on-going projects of these two companies in sustainable development, energy efficiency, low-carbon solutions. Analysing technical and commercial aspects of these projects/options and conducting SWOT analysis for the options.
- Estimated emission reduction of the on-going options.
- Analyzed business drivers and lessons learnt from implantation of the LC options in the two cement companies, for example: business incentives, managerial aspects, public awareness, MRV.
- Incorporated project team comments to the final survey report.

From MOC side, Dr. Nguyen Trung Hoa and Ms. Luu Linh Huong joined meetings in HCMC and Ms. Luu Linh Huong joined supplementary the mission to the two cements plants. The survey team is presented in Appendix 1.

## 2.2 Draft report on Institutional review of the Cement sector in Vietnam (P-I.1.1 – P-I.1.3)

Report P-I.1.1-P.I.1.3 focuses on analysing relevant legislation and regulation in Vietnam with a comparison with legislation and regulation in selected countries. During the period, a draft report has been elaborated, covering a summary of cement sector in Vietnam; the chronological overview of cement sector legislations and strategies; and institutions and governance for cement sector. The report also provides overview of current national plans, policies and strategies of cement sector in the connection with relevant national plans, policies and strategies of cement sector, as well as current industry legislations.

The first draft of the report was submitted to MOC on 25.06.2014, covering I.1.1 (Vietnam context) and I.1.3 (Stakeholders).

## 2.3 Draft report on NAMA cement - Project and Emission Boundary (P-I.2.1)

Report P-I.2.1 focuses on defining the project boundary for calculating emission reductions and determining anthropogenic emissions from sources, and is essential part of the Measurement, Reporting and Verification (MRV) for ensuring greater transparency, accuracy and comparability of information.

The boundary of the NAMA should be clearly defined to avoid any double-counting of emission reductions. While the NAMA boundary could also refer to the geographical delineation (e.g. country, region, state, district, etc.) within this report the boundary related to the emission sources is discussed. Any mitigation activity implemented under the NAMA and the MRV (see also Subtask I.2.2) has to follow the same boundary.

As the analysis of different options above has revealed it is recommended to follow a comprehensive "whole-plant" approach and set the individual project and emission boundary at plant or company level.

The view at the plant level allows the comparison between plants, considering the difference in the production, and would promote transparency in the cement industry. By setting a benchmark or standardised baseline also minimum performance standards and maximum emissions per tonne output could be defined, respectively (carbon intensity).

The emission and project boundary set at the plant-level will allow covering at least Scope 1 and 2 of emission source. Scope 3 could optionally be included, but may increase the effort significantly, while increasing the accuracy only little due to the limited impact / importance within the cement industry compared to scope 2 and 3.

It is recommended that, if deemed relevant, CDM methodologies could be used for identifying and tracking the impact of single measures or sets of measures. This may help to generate relevant data (plant specific, but also for the entire industry). In any case the use of CDM methodologies is recommended for certain elements, e.g. Grid Emission Factor (GEF) for the consumption of electricity from the power grid.

The report is available to the team for internal review, and will be an important input for Subtasks I.2.2 and I.2.3.

### 2.4 Draft report on Data set guidelines and calculation methodologies (P-I.2.2)

Report P-I.2.2 focuses on defining the data set and calculating methodologies for the Measurement, Reporting and Verification (MRV) that include

- The monitoring of energy consumption and CO2 emissions using established standardized measurement and calculation methodologies and tools,
- The reporting of information using standardized definitions, units and performance indicators to internal and external stakeholders.
- The verification of the adequate application of the methodologies by the reporting entity, with the purpose to provide assurance of the quality and reliability of the reported information.

The GHG Protocol Corporate Accounting and Reporting Standard and the CSI Cement CO2 and Energy Protocol are the most complete and comprehensive MRV systems for energy and CO2 in the cement industry. They are the basis for most cement industry reporting systems across the world. The CSI MRV system can be implemented completely or can focus on a number of selected operations and indicators.

The periodic Vietnamese national reporting to the UNFCCC will accurately reflect the cement industry's energy and CO2 emissions and savings only when the inventory of the industry sector will be used "bottom-up" and will replace the IPCC default values currently used for the national reporting.

The report is available to the team for internal review, and will be an important input for Subtasks I.2.3, I.2.4 and I.2.6.

## 3 SUMMARY OF THE MAIN OBSERVATIONS DURING THE SECOND QUARTER.

- a. A detailed work-plan including all the main activities and products have been presented in the Inception Report.
- b. The main risk at this stage is whether it is possible to gather the relevant information and data from the cement plants. This is focus point in the following quarter.
- c. It seems that MOC has secured a good coordination and interaction with other Ministries which is crucial for the success of the project.
- d. The cement plants still have a limited knowledge of the what is a NAMA and what is the added value or burden for them. The cement plants are very keen to be involved in pilot project which will contribute to low carbon development. The workshop contributed to a better understanding of what is a NAMA by several cement plants.
- e. The cement plants are still critical to the NAMA approach. Typical questions and we need to focus on this in the future interactions. 1) Why built a NAMA? meaning can be do this initiative without having NAMA as umbrella? 2) How is the NAMA and MRV system functioning? 3) How shall companies be involve in the NAMA? 4) What is the potential support in the future from the international sources? 5) What is the institutional set-up for implementing NAMA in Vietnam? and 6) The protocol is considered complicated by companies. Will the companies be training in this?

#### 4 Presentation of the second quarter administrative issues.

#### 4.1 New position for project management

The Deputy Team Leader is supporting the Team Leader with both administrative and technical aspects of the project. Given the current situation of having a large team of international and national consultants with complexity of duties and tasks, it requires very often the intensive contribution for both administrative and technical expertise in parallel in some certain stages over the project progress. In order to ensure the smooth and efficient operation of project activities, we would like to propose a split of tasks handled by the Deputy Team Leader into two groups of tasks: Administration and Technical to create 02 project positions: Deputy Team Leader Administration and Deputy Team Leader Technical. A formal request has been forwarded to MOC for the formal approval.

The issue has been discussed with Dr. Hoa and both sides have been positive to this adjustment

- Provide additional position for project management: Phan Thi Minh Thao (6 manmonths), as the Deputy Team Leader Administration as the focal point for administrative and coordination issues.
- Reduce the level of effort of Mr. Ha Dang Son, Deputy Team Leader Technical, to 18 man-months.

The 31 July 2014 formal request for replacement has been forwarded.

#### 4.2 Replacement of project staff

As the Public Awareness specialist, Ms. Loan, will be on maternity leave from August, the consortium proposes to make a replacement accordingly.

- Replacement of Ms. Nguyen Hong Loan by Mr. Vu Van Quang for Public Awareness position

The 31 July 2014 formal request for replacement has been forwarded.

#### 4.3 Timing of workshop

To facilitate the data collection and setting up the database, as well as investigate financial issues on cement sector, one workshop should be held one in the North with participants from cement companies. Thus, the consortium and MOC propose to organize one consultation workshop III.1.1b (Workshop Authorities, October 2015) earlier for the purpose and with a partly other set-up. The focus is now to engage the cement companies more in the project. The adjusted focus will also require that other team member will perform the task. The adjustment will be within the budget.

#### 4.4 Budget management

The budget is in line with the agreed contract.

#### 5 EMERGING IDEAS AND OPPORTUNITIES.

A number of new ideas of significant importance have been noticed and subject to discussions with NDF and MOC during the next period

- Implication of the EU visit to the follow-up activities in international negotiations
- NPI side event in COP 20 (Lima, Peru)
- Investigating financial capability of cement companies and potential financing mechanisms by the Government and international financing institutions.

## 6 CONCLUSIONS AND WORKS TO BE DONE IN THE NEXT QUARTER (AUGUST - OCTOBER 2014)

The project is facing unexpected delays in some subtasks due to the limited availability of international experts during summer holidays in European countries that is, in fact, a consequence of the delay during the first period as regard to the inception workshop and the first milestone payment. Also, the preliminary data collection has identified a number of data issue that should be solved in close collaboration with MOC. As such, the participation of MOC in the low carbon survey would be the first attempt to improve the situation.

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However, a number of sub-products has already been developed and available for review and/or utilizing in other subtasks.

In the next months, the following activities will be conducted:

No.	Sub-task	Description	Sub-product	Responsible	Expected date	Original date	Remark	
0.7: I	ow carbon S	urvey						
1	0.7.1	Survey at two cement plants	write-up on Low carbon projects at Ha Tien 1 and Holcim	Nguyen Tuan Anh	31.08.2014	August	Site visits performed. Draft final report 15 August. Review of international team Ultimo August	
		to Europe will focus on: (i) Carb national experience.	oon market and EU ET	ΓS; (ii) MRV for	cement industry;	; (iii) Low carbor	technologies in cement	
2	0.8.1	The first trip to Europe will focus on: (i) Carbon market and EU ETS; (ii) MRV for cement industry; (iii) Low carbon technologies in cement sector from international experience.	mission to Europe	Morten Pedersen	16-25.09.2014	September 2014	List of MOC delegates has been agreed and an invitation letter for the September trip has been issued. See Appendix 2 for more details.	
	I.1: Overvi	ew of relevant policies, process	es, initiatives and stal	keholders				
2	I.1.1	Listing and description of relevant laws, regulations and incentives (incl. process for existing and new cement plants)	review of the Cement sector in	Nguyen Tuan Anh	Final report 03.09.2014	25.5.2014	The first draft of the report was submitted to MOC on 25.06.2014, covering I.1.1 (Vietnam context) and I.1.3	
3	I.1.2	Analyses of relevant legislation and regulation in Vietnam with a comparison with legislation and regulation in selected countries	-			25.5.2014	(Stakeholders).  Two other countries to be included is under preparatin  One report covering all	
4	I.1.3	Listing and description of key stakeholders to be engaged in	-			issues in I.1.1 to has been dec		

		the Design Stage.					earlier.
	I.2: Iden	tification and collection of relevar	nt data				
5	I.2.1	Determination of justified emissions boundary for pilot programme (activities and emission sources)	P-I.2.1: Writes-up - Project and Emission Boundary for NAMA cement	Axel Michaelowa	29.08.2014	31.5.2014	The first draft of the report is available and subject to internal discussion, as it will be an important input for I.2.2 and I.2.3.
6	I.2.2	Definition of necessary dataset and ideal dataset and associated calculation methods and formulas for determining sector-level emissions and mitigation potential	P-I.2.2: Data set guidelines and calculation methodology (s)	Bruno Vanderborght	15.09.2014	11.7.2014	The first draft of the report is available, however inputs from the Low Carbon survey and P-I.2.1 would be needed to complete the report.
7	I.2.3	Assessment of availability and quality of the data required for determining sector-level emissions and mitigation potential. The activity will build upon Mission 13.	P-I.2.3: Writes-up - Assessment of availability and quality of the data	Dang Hanh	29.09.2014	29.7.2014	Support by MOC/DSTE is required to get access to existing data of the sector.  Draft final report would be available by 18 September for commenting.
8	I.2.4	Compare the ideal data set with the available data set. Describe the gaps Present different scenarios of how to overcome these gaps and with recommendation	P-I.2.4: Writes-up – Data gap analysis	Dang Hanh	17.10.201	29.7.2014	Draft final report would be available by 3 October commenting.

9	I.2.5	Collection of the available data and of missing items of necessary dataset.		Tran M Tuyen	linh	TBD	29.10.2014		TOR under preparation. Significant activities will be performed in third quarter
10	I.2.6	Setting up of a database system (incl. first version of database) to be used by the project	P-I.2.6: Present a model for the emission boundary, main calculation indicators and metrics to be applied.  Compare the three international options with the Vietnamese reality and make a recommendation,  Prepare a template for GHG database  First version of database	Tran M Tuyen	linh	TBD	27.10.2014		TOR under preparation Significant activities will be performed in third quarter
	I.3: Deve	lopment of baseline emission tre	nds for the cement se	ctor					
11	I.3.1	Identifying the historical trend of the emissions included in the scope of the Pilot Programme and determinants of these emissions	P-I.3.1: Trends of emissions	Stefan Weh	ner	TBD	21.11.2014	n	Tor Under preparation. Activity will be initiated in third quarter
	I.4: Settir	ng up of sector-level MRV system	of international stand	lard					

12	I.4.1	Identification of current MRV systems and procedures in cement companies in Vietnam consistent with actual data availability	P-I.4.1: Current MRV systems and procedures in cement companies in Vietnam	Axel Michaelowa	TBD	26.09.2014	TOR under preparation, but field mission by international in August 2014 Significant activities will be performed in third quarter	
	I.5: Assess	ment of mitigation potential, co	sts barriers and polic	y options				
13	I.5.1a	Assessment of current and planned policies relevant to Vietnam's cement sector.	P-I.5.1 Comparative analysis on current and planned policies in Vietnam and other countries	Nguyen Tuan Anh	TBD	28.062014	Link to sub-task I.1.1  TOR under preparation Significant activities will be performed in third quarter	
14	I.5.1b	Assess the policies and regulations in other countries and evaluate whether it can be used in a Vietnamese context of the cement sector emissions in Vietnam		Justine Sefton	TBD	28.06.2014	Link to sub-task I.1.2  TOR under preparation Significant activities will be performed in third quarter	

# APPENDIX 1. LIST OF PARTICIPANTS IN THE LOW CARBON SURVEY IN HA TIEN AND HOLCIM FACILITIES (JULY 2014)

No.		Name	Title	Organization
1	Dr.	Nguyen Trung Hoa*	Director General of DSTE, cum Director of Project Management Board (PMB)	DSTE, MOC
2	Ms	Luu Linh Huong	Expert, Secretary of PMB	DSTE, MOC
3	Mr	Morten Pedersen	Project Team Leader	NIRAS A/S
4	Mr	Nguyen Tuan Anh	Survey Team Leader/Cement Expert	RCEE-NIRAS
5	Ms	Truong Thi Thuy Trang	Cement Environment Specialist	VESCO
6	Mr	Vu Tien Dat	Mitigation & Carbon Finance Specialist	VESCO
7	Mr	Nguyen Thanh Ha	Energy Efficiency Specialist	VESCO
8	Mr	Do Hoang Linh	Silicates Specialist	VICEM

<sup>\*</sup> Dr. Hoa only joined two meetings with Ha Tien 1 and Holcim cement companies in Ho Chi Minh City

### APPENDIX 2. TENTATIVE PLAN FOR EUROPE VISIT BY MOC DELEGATE

						Participa			
Item	Day	Time	Tenor	Activity	Venue	nts	Contact	Transport	Status
1	17-Sep			Flight fr. Hanoi (ETD 16 Sep) to Zurich - Resting				air	
2		15:00		Travel from Zurich to Geneve				train	
3	18-Sep	9:30	CSI	Meeting CSI (Cement Sustainable Protocols and MRV)	Maison de la Paix Chemin Eugène-Rigot 2 CH-1211 Geneva Switzerland T: +41 (0)22 839 31 00 F: +41 (0)22 839 31 31 E: cement@wbcsd.org	NTH LLH HHT MOP HDS Bruno	Roland Hunziker		confirmed
4		14:30	IETA	Meeting IETA (Carbon Trading and ETS)	24, rue Merle d'Aubigné CH-1207 Genève Switzerland E: secretariat@ieta.org T: +41 22 737 05 00 F: +41 22 737 05 08	NTH LLH HHT MOP HDS Bruno	Dirk Forrister		confirmed
5	19-Sep	9:00	Holcim	Visit Holcim Eclépens plant (Cement Production and Technology)	Zementwerk Eclépens, 1312, Eclépens	NTH LLH HHT MOP HDS Bruno			TBC
6	20-Sep			Weekend					

7	21-Sep			Flight to Stockholm			
8	22-Sep	9:00	NIRAS	Meeting NIRAS	NIRAS Sweden:	NTH	
					Lilla Bommen 6	LLH	
					411 04 Göteborg	HHT	
					T: +46 31 348 11 10	MOP	
					F: +46 31 348 11 19	HDS	
9		14:00	CBI	Meeting Swedish Cement	Drottning Kristinas väg 26	NTH	TBC
				and Concrete Institute	SE-114 28 Stockholm	LLH	
					T: +46 10 516 68 00	HHT	
					F: +46 8 24 31 37	MOP	
					E: cbi@cbi.se	HDS	
10	23-Sep	9:00	SEPA	Meeting Swedish EPA	S-EPA:	NTH	TBC
					Naturvårdsverket	LLH	
					SE-106 48 Stockholm	HHT	
					E: registrator@swedishepa.se	MOP	
					T: +46 10 698 10 00	HDS	
11		14:00		Meeting with	TBC	NTH	TBC
				representatives from the		LLH	
				International Advisory		ННТ	
				Group, NDF		MOP	
						HDS	
12	24-Sep			Free day			air
				Flight back to HN (ETA 25			
				Sep)			

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