



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



**Quarterly Report**  
**Report No. 4**  
**November – December 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 the Ministry of Construction (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 fourth quarter of the project covers November to December 2014 as agreed with MOC. During this period, the project team has been working on increasing the confidence in the Vietnamese cement industry to the project, data collection, database design and the development of baseline emission trends for the cement sector.

## **2 MAIN ACHIEVEMENTS OF THE FOURTH QUARTER**

The main activities and products in the fourth quarter:

### **2.1 Workshop on MRV and database for Vietnam's cement companies (P-I.4.2)**

On 6<sup>th</sup> of November 2014, the MOC and the project team organized a Workshop on "Introduction of Energy and CO<sub>2</sub> Reporting System in Vietnam Cement Industry". The objectives are to provide support to cement companies on data monitoring and management for energy efficiency improvement and GHG emissions reduction, as well as to support Vietnamese Government in setting forth policies, fulfilling international obligations on emission reduction in general and in cement industry in particular.

The workshop has attracted the participation of representatives from relevant departments, agencies, and institutes of the Ministry of Construction, Ministry of Natural Resources and Environment, Ministry of Industry and Trade, related organizations, and cement companies in Vietnam.



The agenda of the workshop is attached in Appendix 1 of the report

Conclusions/results in brief:

The workshop on MRV and database for Vietnam's cement companies has been successfully conducted the 6 November 2014 and minutes of meeting has been delivered to MOC.

Feedbacks from cement companies participating in the workshop indicated that there is currently no standardized GHG inventory system and no specific laws and regulations on the implementation of GHG inventory; and a model of data sharing between MOC and cement companies should be established. Improving the database should be a joint effort of MOC, the consultant, and cement companies, both via data request in writing and site-visits.

## 2.2 Report on Data collection and management framework and database design (P-I.2.5 -6)

This report is the output of subtask I.2.5: *Collection of the available data and of missing items of necessary dataset* and subtask I.2.6: *Setting up of a data collection and database system* under the Design Stage. Based on the results from assessment of availability and quality of data and gap analysis, this Report proposes the data collection and management framework for the Viet Nam cement industry and presents the first version of database template. Given the early stage of management awareness and data collection as well as the MRV in the industry, a simplified system including only the minimal required data is provided. It is expected that as a function of the evolution of the project, and especially the collaboration of the cement companies, the system will progressively be further expanded.

### Conclusions/results in brief:

The draft report has been submitted to MOC for review mid-December. The report provides an in-depth analysis on different methodologies on data collection and management based on international experience, with two options for data upgrading and management in a long term for the Readiness Stage so that MOC could consider during the implementation. The report also presents the database template and CO<sub>2</sub> emission calculation method to be applied, and the first version of the database reflecting the 17 cement plants in contact.

## 2.3 Draft Report on Trends of Emission (P-I.3.1)

This report is the output of subtask I.3.1 under the Design Stage: *Identifying the historical trend of the emissions included in the scope of the Pilot Programme and determinants of these emissions*. The key purpose of this report is to identify the historical trend of the emissions for Vietnam's cement sector, e.g. to: (1) develop historical trends of the emissions and (2) development of the future CO<sub>2</sub> emission trends. A general approach to estimate CO<sub>2</sub> emissions from clinker production by using IPCC Guidelines (Tier 1 approach) has been applied.

### Conclusions/results in brief:

The report is available to the team for internal review. The preliminary results, including the relevant KPIs and the emission trendlines were presented at the Midterm Review meeting in January 2015.

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

- a. The cement plants still have a limited knowledge of the what is a NAMA and added values for them from implementing related activities, including a standardized MRV. The workshop on Introduction of Energy and CO<sub>2</sub> reporting system for cement plants on 7 November 2014 was the first effort to increase the awareness among several Vietnam cement plants about good MRV practices.
- b. The assessment of data available via desk review and site visits shows that the current monitoring system and recording practice at the cement plants allow them to gather data of different aspects including operational performance (e.g. capacity, clinker and cement output), energy consumption (e.g. fuel consumption, electricity consumption), and additive-related information.

- c. However, there are gaps existing between the dataset required for the project and the existing dataset at both levels - national and facility levels in terms of accuracy, reliability, completeness and consistency. These gaps are very likely to impose a high uncertainty on the outcomes calculated/aggregated based on the current dataset..

## **4 PRESENTATION OF THE THIRD QUARTER ADMINISTRATIVE ISSUES.**

### **4.1 Biweekly coordination meeting**

The consortium has bi-weekly meetings within the team to secure a smooth coordination of the several parallel on-going tasks and delivery of results.

### **4.2 Budget management**

The budget is in line with the agreed contract.

## **5 EMERGING IDEAS AND OPPORTUNITIES.**

It has been agreed with MOC to increase the information effort and MOC has suggested to prepare articles and regular newsletters for publishing, for instance on the Vietnam Environment Administration Magazine and MOC website. MOC and the management are already discussing further information activities.

## **6 CONCLUSIONS AND RECOMMENDATIONS**

The CSI MRV system shows that it is the most suitable approach for developing a database system for all cement installations and/or companies in Viet Nam, however it should be adapted to match with the local context. Based on the consultation with relevant stakeholders, the project uses a simplified version of the CSI MRV for the Vietnam cement industry energy and CO<sub>2</sub> database.

A national system for MRV including the main components CSI shall be developed. All cement plants will be invited to join, but probably some companies will need more time than others before participating. Therefore a step-wise approach will be applied – first one package of companies, and the system will increase to more companies over time.

The MOC should make a final decision on the methodology that regulate on how the practices of the data collection, confidentiality agreement and management of database as well as reporting the results obtained from the database will be conducted.

The Report on Data collection and management framework and database design is a very important report and it will serve the development further. The document also serve a good document for initiating several activities in parallel in the first quarter of 2015.

## 7 WORKS TO BE DONE IN THE NEXT QUARTER (JANUARY 2015 – MARCH 2015)

No.	Sub-task	Description	Sub-product	Responsible	Expected date	Original date	Remark
<b>Management support</b>							
1	0.2	Mid-term Review meeting	Presentation 19 January 2015 and minutes of meeting.	Morten Pedersen	January 2015	December 2014	Progress meeting with the Project Management Unit, for reporting to the Steering Committee
2	0.2	Increase awareness of the public administration on the project.	Article in Vietnam Environment Administration Magazine	MOC together with Nguyen Tuan Anh	January 2015	None	Awareness campaign as requested by MOC
			Monthly newsletters	Nguyen Hong Loan	monthly		
<b>I.2.5-I.2.6: Data collection and management framework and database design</b>							
3	I.2.5-I.2.6	Data collection and management framework and database design	Report Data collection and management framework and database design.	Tran Minh Tuyen	January 2015		Draft Report delivered to MOC in December. Final version in January 2015.
		Support MOC in sending request letters to DOC and VICEM including follow-up meetings/mission.	Collection of data and analyzing collected data	Tran Minh Tuyen	From January 2015 – a continuous effort		Data and analyzing will be a combined effort MOC and Consortium

No.	Sub-task	Description	Sub-product	Responsible	Expected date	Original date	Remark
<b>I.3: Development of baseline emission trends for the cement sector</b>							
4	I.3.1	Identify the historical trend of the emissions	P-I.3.1: Trends of Emissions	Stefan Wehner	30.01.2015	21.11.2014	Draft has been circulated in December 2014 for internal review
5	I.3.2	Determining the range of baseline projections for cement sector emissions, based on production level and emission intensity scenarios	P-I.3.2: Baseline projection study	Bruno Vanderborght	T.B.D Significant effort in the first quarter 2015	19.12.2014	Starting point I.3.1. TOR will be prepared in January 2015. It will be considered to combine I.3.2 and I.3.3
6	I.3.3	Identification and discussion on issues related to setting the reference level for receiving international support and/or carbon credits	P-I.3.3a: Different reference level P-I.3.3.3b: Comparison study	Bruno Vanderborght	T.B.D Significant effort in the first quarter 2015	26.01.2014	Starting point 1.2.5 and 1.2.6. TOR will be prepared in January 2015. It will be considered to combine I.3.2 and I.3.3
7	I.3.4	Recommending procedures and international requirements for management and revision of baseline database	P-I.3.4 – Report on Recommending procedures and international requirements for management and revision of baseline	Stefan Wehner	T.B.D An effort is expected to be started in March 2015	26.01.2014	Significant activities will be performed in the fifth quarter in connection with I.2.5 and I.2.6 and the lessons learned



No.	Sub-task	Description	Sub-product	Responsible	Expected date	Original date	Remark
			database				from these tasks.
<b>I.4: Setting up of sector-level MRV system of international standard</b>							
8	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	25.03.2015	26.09.2014	In January the management will request to give priority to this tasks.  It was considered to be combined with I.4.2.
9	I.4.2	Assessment of availability and quality of the data required for determining sector-level emissions and mitigation potential	P-I.4.2: Recommendation for improving MRV practices.	Bruno Vanderborght	25.03.2015	25.11.2014	Mission to Vietnam for the MRV workshop during November 2014.  In January the management will request to give priority to this tasks.
10	I.4.3	Proposing appropriate institutional arrangements for MRV	P-I.4.3: Appropriate institutional arrangements for MRV	Dang Hanh	10.04.2015	19.12.2014	The work is a follow-up of finding from I.2.5/6.  This activity can be started in February 2015.
<b>I.5: Assessment of mitigation potential, costs barriers and policy options</b>							
11	I.5.1a	Assessment of current and planned policies relevant to	P-I.5.1a: Comparative analysis on current and planned	Nguyen Tuan Anh	15.03.2015	28.06.2014	The work is a follow-up of

No.	Sub-task	Description	Sub-product	Responsible	Expected date	Original date	Remark
		Vietnam's cement sector.	policies in Vietnam				subtasks I.1.1. Significant activities will be performed in the fifth quarter
12	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	P-I.5.1b: Comparative analysis on policies and regulations in other countries and the applicability to the cement sector of Vietnam	Chris Dodwell/ Anna-Liisa Kaar (not decided yet)	30.03.2015	28.06.2014	Link to sub-task I.1.2 and outputs of I.5.1a. It is recommended that Anna-Liisa Kaar has a mission to Vietnam in the second week of March and finalize the report based on the consultation with stakeholders.
13	I.5.2	Identification of various mitigation action from Vietnam's cement sector	P-I.5.2: Various mitigation action for the cement sector	Ha Dang Son	25.03.2015	19.12.2014	The work is a follow-up of subtasks 0.7 and findings from I.2.5/6. It was considered to be combined with I.5.3.
	I.5.3	Preparation of a marginal abatement cost (MAC) curve for identified actions	P-I.5.3: Marginal abatement cost	Stefan Wehner	25.03.2015	28.01.2015	It was considered to be combined with I.5.2. Mission in March by Stefan Wehner.
<b>I.6: Options for matching policy toolkit with NAMA support</b>							

No.	Sub-task	Description	Sub-product	Responsible	Expected date	Original date	Remark
14	I.6.1	Definition of the type and requirements of the NAMA to be established that takes into account the NAMA lessons in other countries and also ensure that the results from the baseline setting exercise as well as the political economy analysis (which policy instruments are actually available) will be reflected.	P-I.6.1 and I.6.2.: Type and requirements of the NAMA and conceptual framework of NAMA.	Ingo Puhl	16.03.2015	28.01.2015	TOR agreed. I.6.1 and I.6.2 will be combined due to its relevance. Mission in the first week of February.
	I.6.2	Design of a conceptual framework for the design of a NAMA	P-I.6.1 and I.6.2.: Type and requirements of the NAMA and conceptual framework of NAMA.	Ingo Puhl	16.03.2015	28.03.2015	TOR agreed. I.6.1 and I.6.2 will be combined. Mission in the first week of February.
<b>I.7: Identification of potential national and international financial resources</b>							
15	I.7.1	Analysis of existing financing sources	P-I.7.1: Existing financing sources	Ingo Puhl	20.02.2015	28.06.2014	TOR agreed. Mission in the first week of February.
<b>I.8: Preparation of Stakeholder Map and Plan</b>							
16	I.8.1	Preparing stakeholder map and plan identifying relevant stakeholders for the Consultation Stage and issues to be discussed	P-I.8.1: Stakeholder Mapping and Consultation Plan	Manuel Cocco	T.B.D. It should be finalized latest mid-March	30.04.2015	In January the management will request Manuel Cocco to prepare TOR.

## APPENDIX 1. WORKSHOP AGENDA - INTRODUCTION OF ENERGY AND CO<sub>2</sub> REPORTING SYSTEM IN VIETNAM CEMENT INDUSTRY

Thursday, November 06, 2014, Pullman Hanoi Hotel, 40 Cat Linh Street, Ha Noi

<b>Time</b>	<b>Subject</b>	<b>Speakers</b>
08:00 – 08:30	Registration	
08:30 – 08:40	Welcome and Introduction to the workshop	Mr. Nguyen Trung Hoa, Director of DSTE, MOC
08:40 – 08:50	Brief introduction to the NAMA project Presentation of the objective of the workshop	Mr. Ha Dang Son, Project Deputy Team Leader
08:50 – 9:50	Introduction of Cement sector energy and CO <sub>2</sub> information system. International cement industry experience and Business Case for Vietnam	Mr. Bruno Vanderborcht, Project Technical Consultant
09:50 – 10:30	Data collection methodology and Data template - How to fill in the data contents	Mrs. Dang Hong Hanh, Project Technical Consultant
10:30 – 10:45	Tea and Coffee Break	
10:45 – 11:30	Questions and Answers	All participants
11:30 – 11:45	VICEM's view on energy and CO <sub>2</sub> reporting system	Representative from VICEM
11:45 – 12:00	Energy and greenhouse gases database of the Holcim cement plant	Representative from Holcim Vietnam
12:00 – 13:30	Lunch Break	
13:30 – 14:30	Open discussion on Energy and CO <sub>2</sub> data quality assurance and quality management in Vietnam cement plants	All participants
14:30 – 14:45	Discussion Wrap-up	Mr. Ha Dang Son, Project Deputy Team Leader
14:45 – 15:00	Conclusion and closure of the meeting	Mr. Nguyen Trung Hoa, Director of DSTE, MOC