

TERMS OF REFERENCE

TECHNICAL SUPPORT FOR IMPLEMENTATION OF MANDATORY PRODUCT CERTIFICATION FOR 3 NON-FIRED BRICKS PRODUCTION PROJECTS

Project Name	Promotion of Non Fired Brick Production and Utilization in Viet Nam
Name of Assignment	Technical support for implementation of mandatory product certifications for 3 Non-Fired Brick production projects.
Duty location:	Ha Noi and others provinces
Duration:	08 months, starting from May, 2017
Direct supervisor:	Building material Specialist

1. BACKGROUND

On 29 August 2008, Decision No. 121/QĐ-TTg approving the “Master Plan on development of building materials up to 2020” was issued by the Prime Minister. Later on, this was replaced by Decision No. 1469/QĐ-TTg dated 22 August 2014 on “Master Plan on building materials development up to 2020 with vision to 2030”.

To motivate the development of Non-Fired Bricks (NFB), Decision No. 567/QĐ-TTg on NFB development program up to 2020 (Program 567) was issued by the Prime Minister on April 28, 2010. Major objectives of the program are as follows:

- Market share of NFB to increase by 20% - 25% by 2015 and 30% - 40% by 2020, respectively;
- Utilization of around 15-20 million tonnes of industrial waste (ash) from coal-fired power generation and other industries to produce non-fired building materials, saving around 1,000 hectares of agriculture land annually; and
- All traditional Fired Clay Brick (FCB) making plants to be gradually replaced by NFB production facilities.

On 19 September 2014, the Prime Minister issued Decision No. 1686/QĐ-TTg on approval of Project Categories, funded by *United Nations Development Programme* (UNDP) and assigned the Ministry of Science and Technology as main entity in-charge and the Ministry of Construction as co-implementing partner.

The objective of the Project is to reduce the annual growth rate of GHG emissions by displacing the use of fossil fuels and the usage of good quality soil for brick making through the increased production, sale and utilization of Non-Fired Bricks (NFB) in Vietnam. This objective will be achieved by removing barriers to increase production and utilization of NFBs through 4 components:

- i) Policy support for NFB technology development.
- ii) Technical capacity building on NFB technology application and operation and use of NFB products

- iii) Sustainable financing support for NFB technology application
- iv) NFB technology demonstration, investment and replication.

The Project will be implemented over a 5-year period and is expected to generate GHG emission reductions through the displacement of coal-fired clay brick kilns. Direct GHG reduction is estimated at 383 ktonnes CO₂. Indirect emission reduction is estimated at 13,409 ktonnes CO₂ that is cumulative for a 10-year period after the end of the Project.

One of the core strategies of the project is to implement 3 demonstration projects on NFB for the purpose of reviewing, learning from experiences and replicating and transferring technology to 21 other replication projects.

According to the Circular No. 21/2010/TT/BXD dated November 16th, 2010 issued by MOC on mandatory product certification and the Circular No. 28/2012/TT-BKHCN dated December 12th, 2012 on Mandatory Product Certification issued by MOST, Concrete Brick product must be mandatorily certified. There is a need for support to the NFB factories to prepare and get this mandatory product certification.

This TOR describes in detail the tasks of one national expert to provide technical support for implementing mandatory product certifications for 3 Non-Fired Brick production factories.

2. OBJECTIVE

Objective of the subcontract is to support the three NFB factories to prepare 3 supporting documents for mandatory product certification, assisting NFB production factories in implementing these documents, and get mandatory product certifications issued by an appointed certification institution of Ministry of Construction or Ministry of Science and Technology.

3. DELIVERABLES

3.1 Three (03) supporting documents for the mandatory product certification for 3 factories. Each of the supporting document shall include:

- Product Quality Manual;
- NFB production process;
- Product quality control process;

3.2 A report of the whole assignment detailing tasks provided, the results of support and advise provided to the 03 selected factories during the preparation and implementation of supporting documents and during the appraisal by the appointed certification institution and recommendations. This report shall be in both English and Vietnamese.

4. SCOPE OF WORK

- a) Review all the related laws, standards, circulars and documents on mandatory product certification and NFB. Key documents to be review includes but may not be limited to the following:
 - Law on standard and technical regulation

- TCVN 6477-2011 (National Standard) for concrete block brick
 - Circular No. 21/2010/TT/BXD dated November 16th, 2010 by MOC on Mandatory Product Certification
 - Circular No. 28/2012/TT-BKHCN dated December 12th, 2012 on Mandatory product Certification issued by MOST
- b) Develop implementation plan of the assignment basing on 3 factories selected by PMU.
 - c) Conduct field survey and collect necessary data of materials, manufacturing technologies, product quality, organizational structure, and human resources for drafting the supporting documents for mandatory product certification for the 3 selected factories.
 - d) Draft three (3) supporting documents of mandatory product certifications for the 3 factories, each supporting document should include: a) Product Quality Manual; b) NFB manufacturing process; c) Raw material management regulations.
 - e) Guide the factories to implement the supporting documents of mandatory product certifications and other related legal provisions to meet the requirements in the supporting documents and related regulations.
 - f) Advice and support the factories during the time the appointed certification institution appraises and assess the supporting documents and current production status of the factories.
 - g) Improve supporting documents for the mandatory product certification, as required by the appointed certification institution.

5. APPROACHES

The National expert needs to understand the project objectives, project implementation strategy, and about the 3 Non-Fired Brick manufacturing factories, based on which a scientific and effective implementing plan needed to be developed for the 3 selected factories.

Coordinate closely with the 3 factories to survey and assess the status, collect necessary data and information to help develop the processes, which are the production Process, Quality Management Process and Materials Management Processes for each factory.

Collaborate with the certification institution to support the selected factories in implementing management processes required to get mandatory product certification.

Coordinate closely with key partners such as the PMU, the factories, an appointed certification institution to manage any problems during the implementation process.

6. IMPLEMENTATION PLAN

Estimated duration of the assignment: 08 months, starting from May, 2017. The National expert should provide a detailed implementation plan. The National expert needs to meet the following key milestones mentioned above.

Key milestones are as indicated in the deliverables:

No.	Deliverables	Deadline
1	Completed documentation for mandatory product certification of the first selected factory for submission to the certification	July 31, 2017

	institution.	
2	Completed documentation for mandatory product certification for the second selected factory for submission to the certification institution.	September 30, 2017
3	Completed documentation for mandatory product certification for the third selected factory for submission to the certification institution.	November 30, 2017
4	A report of the whole assignment detailing tasks provided and the results of support and advise provided to the 03 selected factories during the preparation of supporting documents and during the appraisal by the appointed certification institution and recommendations. This report shall be in both English and Vietnamese.	December 31, 2017

7. QUALIFICATION AND COMPETENCIES

The Specialist must have at a minimum, a university degree in building materials, building materials/NFB manufacturing technology. Master/Phd in the same expertise or related majors will have an advantage.

The Specialist must have expertise and experience in NFB manufacturing technology, deep understanding of the provisions of the law on Standards and Technical Regulations, on mandatory product certification, on product quality management for building materials.

At least 5 years of technical experience in consulting for investment projects, design, installation, operation and management of Non-Fired Brick production line.

Proven experiences in working with manufacturing sector and governmental officials.
English fluently.

8. Terms of payment

Rate of remuneration is determined based on the consultant's competencies and experience and EU-UN cost norms in Vietnam issued by UN-EU and the Ministry of Planning and Investment.

Other expenses are determined in accordance with HPPMG's regulations and EU-UN cost norms in Vietnam issued by UN-EU and the Ministry of Planning and Investment.