

## **Term of Reference for**

### **Evaluation for sustainability, affordability, scalability of Compressed Stabilized Earth Bricks (CSEB) under Affordable Housing Solutions Project**

#### **Background**

Affordable Housing Solution Project has been designed to look for sustainable and scalable solutions that address the issues of affordable and adequate housing for the targeted populations. Houses and buildings in Nepal, mostly in rural and peri-urban areas, do not follow the national building codes and people usually live in substandard housing. On one hand, there is a lack of technical knowledge and awareness among communities regarding safe and earthquake resistant housing largely due to homeowners not been consulted and involved in the overall planning and decision-making process in construction; on the other hand, homeowners mostly prefer the common Reinforced Cement Concrete (RCC) structures which are more expensive. The fired bricks and reinforced concrete structures is too expensive for poor families. While traditional stone houses are very labor intensive to build and costly to make earthquake resistant. Women have more difficulties accessing adequate and affordable housing though they value homeownership since they associate it with stability, economic independence, and household welfare.

Based on the country context and above key challenges, CARE Nepal with other partners has been exploring other alternative and innovative housing solutions that are more cost-effective, environment friendly, locally adaptable and sustainable. This project has initiated solutions to tackle the demand for affordable housing by poor and marginalized people. The project has used Compressed Stabilized Earth Bricks (CSEB)/interlocking bricks as an alternative material for affordable housing solution project. This CSEB can be made with stone dust/soil and cement. The stone dust used in the interlocking brick production is the wastage produced during the crushing of stone at crusher factory. Similarly, the 12 houses build in this project will be using local materials such as sand, aggregates, stone from the nearest quarry sites along Karnali river and local crushers including timbers from adjoining communities forest and local market.

The project has supported Triveni Interlocking Brick Production Group for production of brick, This company is one of the subcommittee of Triveni Saving and Credit Group of Janaki Rural Municipality Ward no 3. This co group has supplied bricks for construction of 12 houses which were supported by the project

#### **Objectives and Scope of Assessment**

The overall objective of this assessment is to find out the affordability and acceptance of CSEB in market, commercial viability and possibilities of crafting a sustainable business model of CSEB production in Janaki RM and Tikapur Municipality of Kailali district.

The specific objectives are:

- To study the appropriateness of CSEB for flood and earthquake response (including comparison with other construction materials)
- To illustrate different stage of CSEB business cycle
- To study the affordability of CSEB by potential house owner
- Acceptance of CSEB in local market (Assessing the market size for CSEB including the acceptance)
- To evaluate financial viability of CSEB Enterprise (Cost of production, Break Even Point, Profitability and total capital requirement for establishment)
- To study the sustainability of CSEB enterprise
- Socio-economic impact of the enterprise to women
- To suggest immediate and mid-term interventions for increasing market share of CSEB and make CSEB enterprise sustainable
- To study the business models applied by similar CSEB's enterprise in Kailali and Kanchanpur
- To suggest the appropriate business model for CSEB considering its affordability, market, transportation cost, profitability and acceptance by house owners
- To study the immediate outcome on life of community from new CSEB houses

**The proposed assessment area:**

Detailed study on CARE supported CSEB enterprise in Janaki Rural Municipality -3, Kailali and three other CSEB production groups in Kailali and Kanchapur district (at least two in each district) for applied business models only. Sampling is based on donor funded, joint ownership and sole entrepreneurs.

**Study design and methodology**

- Desk study and review of relevant resources/ literature on CSEB
- Develop study methodology and tools:
  - Identify study design and strategy including KII, FGD, Participatory methods, primary data collection, etc.
  - Mixed sampling of donor funded, joint ownership, sole entrepreneurs
- Identification of different entrepreneurs in the selected local municipalities
- Collection of data from different sources including local municipalities:
- Data analysis and draft report preparation.
  - Analyze the financial statement of enterprise
  - Calculation of cost of production and breakeven point
  - Analyze the profitability
- Address the comments/suggestions
- Preparation of final report

**Deliverables and reporting**

The following deliverables are expected to be produced by the evaluator(s):

- An inception report (outlining the scoping the study, methodology, operationalization of study questions and planned procedure and approach of the study) in English.

- A complete evaluation report incorporating points stated in objectives and scope of evaluation
- The researcher(s) should provide a digital file with at least 10 good quality photographs capturing field visits and other meetings such as FGDs, KIIs, Other interviews etc. Written or, verbal consent is the prerequisite while taking photographs

### **Study timeline**

This assignment should be started within 23<sup>rd</sup> of Jan 2023 and is to be completed by Mid Feb 2023.

Activity	Number of days	Time frame
1. Literature review	2	
2. Inception report	2	
3. Field work	8	
4. Report writing	5	

### **Qualification and expertise required**

Consultant should have experience on similar kind of research along with knowledge on business modeling and marketing. Academically S/he should be Master Degree on Business Administration or other relevant discipline with 5 years of experience of managing enterprise promotion programs, marketing and business planning. Preference will be given to firm/consultant who has prior experience in similar evaluation.

#### In case of consulting firm(s):

- Legal Documents – Business Registration document, VAT Certificate, Recent Tax Clearance Certificate

#### In Case of Individual:

- PAN Certificate

### **Proposal submission deadline**

The interested and qualified consultant/consulting firm must submit their technical and financial proposal, including legal documents (registration & tax clearance in case of consulting firm and PAN/Vat registration card for individual) and CVs of key personals by COB dated on **12<sup>th</sup> Jan 2023** via email address: [npl.carenepal@care.org](mailto:npl.carenepal@care.org)

**Evaluation and Award of Consultancy:**

CARE Nepal will evaluate the proposals and award the assignment based on technical (70%) and financial (30%) criteria. CARE reserves the right to accept or reject any proposal received without giving reasons and is not bound to accept the lowest, highest, or any bidder

**Payment terms:**

- Full payment (100%) will be made after submission and approval of the final report.