



Funded by
the European Union



THE COCONUT WASTE PROJECT

TERMS of REFERENCE

Midterm Evaluation (2020 – 2022)

CERATH Development Organization

November 2022



La NKWANTANANG
MADINA MUNICIPAL
ASSEMBLY



1.0 Introduction

1.1 Background of the project

The Coconut Waste Project, co-funded by the European Union (EU) under the Circular Economy and Local Development Program, is a four-year project being implemented by CERATH Development Organisation (lead), the La-Nkwantanang Madina Municipal Assembly (LaNMMA), and the Tree Crops Centre (TCC). The project officially commenced in January 2021 and is currently in its second year of implementation. The project aims to achieve a green-circular economy and create livelihood opportunities within the La Nkwantanang- Madina Municipality (LaNMM) through value addition to coconut husks (waste). The main beneficiaries of the project are coconut vendors, unemployed youth, market actors, LaNMMA, and adjoining communities.

The strategic objectives of the project are:

- ❖ Establishing a coconut waste aggregation system in the target municipality.
- ❖ Instituting a processing centre to convert coconut waste into selected useable products, including cocopeat, coir fibre, and coconut shells.
- ❖ Creating linkages with market actors to procure coconut waste value-added products.
- ❖ Implementing a monitoring and evaluation system for waste management, learning, and scaling of the project.

This project contributes to the overall vision of the Circular Economy and Local Development program by innovatively utilizing coconut husks to enhance environmental protection and stimulating job creation in the municipality.

The Coconut Waste Project is designed to improve sanitation conditions and create livelihood opportunities for coconut vendors and unemployed youth. For the first two (2) years of implementation, the project has built the capacities of 12 unemployed youth and 144 coconut vendors in the 7 project communities on green employability and entrepreneurship skills. The project has also facilitated access to social protection services including health insurance and life insurance schemes (among others). Additionally, the project has acquired land and commenced the construction of the coconut waste processing facility. At the national level, the project has forged strong working relations and partnerships with the Ministry of Environment, Science, Technology and Innovation, National Youth Authority (also at the district level), Adentan Municipal Assembly, LaNMMA, National Health Insurance office and other private and Civil Society Organizations (CSOs).

1.2 Theory of Change

Ghana is ranked the 16th producer of coconut in the world producing about 224 million fruits annually¹. According to Oduro-Yeboah et. al², coconuts are found along the entire coast of Ghana and employ about 76,000 people nationwide. Although coconut was first introduced in the Volta region, recent reports indicate that the bulk of its production comes from the Western Region³. Coconut is a very versatile fruit with a plethora of uses. Coconut water and flesh are usually enjoyed as a snack and support the dietary needs of the majority of Ghanaians. The cream, oil, and milk extracted from the mature fruit serve as a source of raw material in the food, cosmetics, and energy industries⁴. Additionally, coconut waste specifically the husks and shells serve as a great source of bioenergy⁴. In recent times, the coconut business generates significant income for many rural dwellers engaging in the production and selling of the fruit.

Despite the socio-economic benefits of coconuts in Ghana, their contribution to waste generation is enormous with minimal measures for its management. In Ghana, indiscriminate disposal of coconut waste is evident in major urban areas in Accra, Kumasi, and Takoradi. It is estimated that over 30,000 tons of coconut shells from coconut related activities are generated annually⁵. A study conducted estimated that 2.54 to 2.94 tonnes of coconut waste is generated per month within the Kumasi metropolis⁶. It further revealed that 91% of the coconut waste ends up at the dumping sites, about 8.9% and 0.10% are used as fuel and doormats respectively.

The La Nkwantanang-Madina Municipality (LaNMM) is not immune to the indiscriminate disposal of coconut waste. The situation continues to derail the efforts of the municipal assembly to manage its waste. Coconut vendors continue to dump coconut husk waste at undesignated waste dumping sites within the municipality. On the other hand, the municipality is not able to harness the economic opportunities within the coconut waste value chain. This requires the implementation of alternative actions, which will improve the sanitation conditions emanating from the indiscriminate disposal of coconut waste whiles creating livelihood opportunities. The Coconut Waste Project presents an integrated approach to contributing towards a green-circular economy while enhancing local economic development within the La Nkwantanang-Madina Municipality.

Instituting a coconut waste processing facility is targeted at creating livelihood opportunities, managing the coconut waste generated in the project area, and finally, resulting in improved environmental conditions. Through the project baseline study, an average volume of 44 tons of coconuts is sold within the project target areas per day. In LaNMM alone, about 34 tons of coconut waste is generated within the target area per day. Approximately, 1,020 tons of coconut husks are generated within a month and 12,240 tons of coconut husks are generated annually. Nearly 18 tons of coconut waste is generated per day in Madina central and surrounding areas (UPSA, firestone, etc) along with a mean generation of 116Kg per vendor.

¹ Francis Nana Yaw Codjoe, Kofi Adade Debrah & Yaw Bonsu OseiAsare | (2021) Food vending safety concerns: Consumer perception on fresh coconut in New Juaben South Municipality of Ghana, *Cogent Food & Agriculture*, 7:1, 1914908, DOI:10.1080/23311932.2021.1914908

² Oduro-Yeboah, C., Ackah, N. B., Akonor, P. T., Amponsah, S. K., & Mboom, F. P. (2020). Food safety knowledge and practices among fresh coconut vendors. *Scientific African*, 8, e00392.

³ Yeboah, S. E. (2009). Ghana Coconut Industry. Appraisal report. Abankwah V, Aidoo R, Tweneboah-Koduah B (2010) Margins and economic viability of fresh coconut marketing in the Kumasi metropolis of Ghana. *J Dev Agric Econ*2 (12), 432-440

⁴ Obeng, G. Y., Amoah, D. Y., Opoku, R., Sekyere, C. K., Adjei, E. A., & Mensah, E. (2020). Coconut Wastes as Bioresource for Sustainable Energy: Quantifying Wastes, Calorific Values and Emissions in Ghana. *Energies*, 13(9), 2178

⁵ Buah, W. K., & Kuma, J. S. Y. (2012). Properties of activated carbon prepared from coconut shells in Ghana. *Ghana Mining Journal*, 13, 51-55.

⁶ https://www.researchgate.net/figure/Plot-of-whole-coconut-waste-samples-and-their-weights_fig3_341137302

2.0 The Evaluation

2.1 Objective/ Purpose of the Evaluation

The objective of this midterm evaluation is to examine the level of progress since the project's inception in January 2020. The evaluation should reflect on the progress that has been made in line with the work plan, chosen approaches, the knowledge level of target beneficiaries, and also elicit perceived challenges from the target beneficiaries.

2.2 Specific Evaluation Questions

In understanding the effectiveness of the project objectives, the midterm evaluation will need to address the following:

Objective 1: Establishing a coconut waste aggregation system in the target municipality.

- Have coconut vendors and dumping sites been identified and mapped out in the municipality?
- Have GPS-embedded tricycles been procured for coconut waste aggregation?
- Has the project launched entrepreneurial training for youth coconut waste aggregators?
- Have the project beneficiaries been linked to at least one social protection agency?
- What is the beneficiaries' feedback on the social protection services received?

Objective 2: Instituting a processing centre to convert coconut waste into selected useable products, including cocopeat, coir fibre, and coconut shells.

- Has an appropriate site been secured to establish the factory?
- Have appropriate documentation and permits been received for the establishment of the factory as done according to the laws of Ghana?
- Have logistics been procured according to the required factory specifications?
- Has the processing facility been constructed? What level of construction has been reached?
- Has the project taken necessary steps toward recruiting and training youth and disabled persons as processing center workers?

Objective 3: Creating linkages with market actors to procure coconut waste value-added products.

- Has the project engaged market actors for partnership opportunities? How many?
- Have any partnerships been formed by the project toward market opportunities?

Objective 4: Implementing a monitoring and evaluation system for waste management, learning, and scaling of the project.

- Does the project have a monitoring and evaluation plan in place?
- Does the project conduct periodic monitoring visits (to project areas and construction sites)?
- Has the project engaged public and private stakeholders through events/workshops? How many?
- What research materials have been developed and published?

3.0 Methodology

The evaluation will span a period of one month (January - February 2023) in the Coconut Waste Project district (La Nkwantanang-Madina Municipality). While the exact evaluation methodology is to be proposed by the consulting agency, the following elements should be included:

1. Review and validation of the project data (results, outputs, activity reports etc.) against the annual reports and newsletters.
2. Qualitative data collection:
 - Interviews and participatory sessions (focus group) with project beneficiaries (coconut vendors).
 - Interviews and participatory sessions with collaborative agencies (eg Quality Life Assurance, and LANMMA, etc)

4.0 Deliverables and Timeframe

The evaluation assignment (including submission of reports) will be undertaken in 22 working days. The consulting agency will provide a work plan within the framework of the time allocated. All application documents (proposal, budget, and all relevant documents) are to be sent in portable document format (PDF) by 9th December 2022 to procurement@cerathdev.org The subject line for the submission should be **“MIDTERM EVALUATION: COCONUT WASTE PROJECT”**. Kindly note that only shortlisted applicants will be contacted.

The deliverables of the assignment will include;

1. Field visit report (to be submitted on weekly basis during the evaluation period)
2. The evaluation report should be structured and must include:
 - Executive summary
 - List of Acronyms and abbreviations
 - Table of Contents
 - Introduction
 - Methodology
 - Results from the Evaluation
 - Conclusion, lessons, and recommendations
 - Annexes, including data collection tools, data set, photos, etc.

5.0 Evaluation Team and Experience

Interested consulting agencies must demonstrate the following in their proposals:

- Proven expertise and experience in conducting project evaluations.
- Knowledge and experience in the circular economy is an advantage.
- Excellent attention to detail and evidence of quality outputs from previous assignments.
- Strong qualitative and quantitative analytical skills.
- Good reporting and presentation skills.

- Detailed CVs of the team members who will undertake the assignment. This should be an annex.

6.0 Proposal Format

Bidders are to submit a proposal of 15 pages maximum excluding cover page and table of content. The font and font size to be used are Times New Romans 11. The proposal must include the following;

- Cover page
- Information on bidding organization or consortium
- Past experiences with relevant contact details of clients.
- Implementing team profiles
- Methodology for evaluation
- Work plan
- CVs of the team (as an Annex)

7.0 Budget

- Budget with explanatory notes (in GH¢)

8.0 Rights of Contracting Entity

CDO reserves the right to award this assignment to two entities to collaboratively implement the evaluation. Also, CDO reserves the right not to award any bidder if the quality of proposals submitted are not as expected, or the budget presented far outweighs the allocated budget.