Funded by
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THE COCONUT WASTE PROJECT

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TERMS of REFERENCE

Endline Evaluation (2020 – 2024)

CERATH Development Organization

November 2024

CERATH DEVELOPMENT ORGANISATION

La NKWANTANANG MADINA MUNICIPAL ASSEMBLY

TREE CROPS CENTER

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 annually[1]. According to Oduro-Yeboah et. al[2], 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 Region[3]. 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 industries[1]. Additionally, coconut waste specifically the husks and shells serve as a great source of bioenergy[4]. In

[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 Econ2 (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

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 annually[1]. A study conducted estimated that 2.54 to 2.94 tonnes of coconut waste is generated per month within the Kumasi metropolis[6]. 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.

2.0 The Evaluation

2.1 Objective/ Purpose of the Evaluation

The end-line evaluation will assess the overall performance, achievements, and impact of COWAP at project closure. It will determine the extent to which objectives were met, identify lessons learned, and provide recommendations for sustainability and replication.

2.2 Specific Evaluation Questions

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

Objective 1: Coconut Waste Aggregation System

- To what extent has the aggregation system been established and sustained?
- How effective has it been in reducing indiscriminate disposal of coconut waste?

Objective 2: Processing Centre

- Has the facility been fully operationalized, and what products are being produced?
- How many jobs have been created, and what is the gender and youth distribution?

Objective 3: Market Linkages

Energy: Quantifying Wastes, Calorific Values and Emissions in Ghana. Energies, 13(9), 2178

[1] 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

- What partnerships have been established with market actors?
- How viable are the market opportunities for coconut waste products?

Objective 4: Monitoring & Evaluation System

- How effective has the M&E system been in tracking progress and learning?
- What evidence exists of scaling or replication potential?

Cross-Cutting

- What socio-economic and environmental impacts has the project achieved?
- What challenges and barriers remain for sustainability?
- What lessons can inform future circular economy projects?

3.0 Methodology

The consultant will propose a methodology but must include:

- Review of project documents, reports, and M&E data.
- Key informant interviews with project partners, beneficiaries, and stakeholders.
- Focus group discussions with coconut vendors, youth, and women participants.
- Field visits to aggregation points and the processing facility.
- Comparative analysis of baseline, midterm, and end-line data.

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 11th December 2024 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;

- **Inception Report** (work plan, methodology, tools).
- **Weekly Field Visit Notes**.
- **Draft End-Line Evaluation Report**.
- **Final End-Line Evaluation Report** including:
    - Executive Summary
    - Introduction & Methodology
    - Findings by Objective
    - Impact Assessment (environmental, socio-economic)
    - Lessons Learned & Recommendations
    - Annexes (data tools, datasets, photos, stakeholder list).

5.0 Evaluation Team and Experience

Interested consulting agencies must demonstrate the following in their proposals:

- Proven expertise in end-line evaluations of EU/donor-funded projects.
- Experience in circular economy, waste management, and livelihood projects.
- Strong qualitative and quantitative analytical skills.
- Excellent reporting and presentation skills.

6.0 Proposal Format

Interested applicants should submit:

- CVs of team members.
- Technical proposal (max. 15 pages).
- Budget with explanatory notes (in GHS).

Send applications to **procurement@cerathdev.org** by **11th Dec, 2024.**
Subject line: *"End-Line Evaluation: Coconut Waste Project"*.
Only shortlisted applicants will be contacted.

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.