

REQUEST FOR PROPOSAL

GAIN Postharvest Loss Alliance for Nutrition (PLAN)

Replacing Raffia Baskets with Reusable Plastic Crates (RPCs): Assessment of the potential socio-economic impact on livelihoods of basket makers in Nigeria

October 2018

1. BACKGROUND

GAIN and the Postharvest Loss Alliance for Nutrition (PLAN) Initiative: As a leader in identifying and delivering solutions to address malnutrition, the Global Alliance for Improved Nutrition (GAIN) created the **Postharvest Loss Alliance for Nutrition (PLAN)** to bring together the multitude of public and private actors addressing this issue to collectively reduce loss and waste of nutritious food. PLAN is acting as both a global nucleus for coordination, programming, research, knowledge exchange and investment on postharvest food loss as well as a national hub in emerging markets for business to business (B2B) engagements. Through **National and Global Alliances** of stakeholders engaged in postharvest loss and waste (PHL/W) reduction, GAIN serves as a backbone organization driving for collective impact. At the center of the Alliance is the Business to Business (**B2B**) Engine where local business is matched with international industry leaders and technical experts to increase local enterprises' access to knowledge, technologies and the financial services.

PLAN's mission is to coordinate and sponsor measurable actions to address losses in perishable and nutritious food supply chains thereby putting much-needed nutrients back into the food system; increasing supply and driving down the cost of these products for low-income households in developing countries.

PLAN Nigeria is a national alliance, led by GAIN and made up of Nigerian stakeholders and actors that seek to decrease PHL/W and reduce malnutrition. PLAN Nigeria's mission is to tackle malnutrition by increasing the affordability and availability of nutritious foods by reducing postharvest losses of nutrient dense horticulture crops. Nigeria was identified as the first local PLAN country due to the high potential for impact and enabling environment for successful implementation. It is one of 10 countries with the highest burden of malnutrition in the world: 37% stunting, 29% underweight and 18% wasting. The perishable horticulture sector is highly productive, yet it is estimated that postharvest losses and waste are as high as 50%. With the largest economy in Africa, Nigeria has a robust and growing agro-industrial private sector that includes agro supply services and technologies, processors, distributors, and grocery chains, but has limited availability of quality private sector postharvest loss solutions. These qualities align with PLAN's national alliance criteria for high potential for impact and high feasibility of successful implementation.

In its Country Programme Framework for 2012-2017, the Nigerian government set an agenda to reduce postharvest losses by partnering with the private sector, giving priority to food preservation and processing, pest control, and reducing food contaminants and pollutants to assure food safety. This focus

has been narrowed to target postharvest loss and waste of some specific horticulture crops that affect nutrition and trade such as tomatoes, mangos and pineapples.

Over the last 2 years, PLAN has brought together the multitude of public and private actors working to reduce PHL/W through a series of workshops held in Nigeria. These roundtable discussions have shaped PLAN's approach to PHL/W in the areas of knowledge and research, policy and food safety regulations, cold chain, packaging and crating, proximate processing and innovative finance. Through these engagements, PLAN propagated the use of reusable plastic crates for handling fresh fruits and vegetables-FFVs by partnering with Lagos state Ministry of Agriculture and other partners such as GEMS4 and Pyxera Global to organize market storms in major local markets. PLAN also organized a crating workshop on May 18, 2017 to explore incentives for lending, leasing and owning crates. To further strengthen the Value chain, PLAN equally conducted series of training workshops on food safety and packing house operations, cold chain logistics and tomato processing and packaging technologies to improve the postharvest management of FFVs for reducing losses.

Postharvest loss from inadequate packaging: Poor quality packages such as sacks or baskets cause produce to be bruised, squashed and receive abrasions during handling and transport to market. Packaging of FFVs is mostly done using raffia baskets in Nigeria. These baskets are produced mainly in the South East of Nigeria but are found and utilised in various fresh produce centres and across the wholesale sections of the FFVs supply chains, from farmers to the retailers. These raffia baskets are a major source of postharvest losses as FFVs are highly perishable; the close knit weave of the baskets does not support proper aeration of the contents and generates internal heat of the organic contents, the lack of a firm structure or rigidity causes basket compression when the baskets are stacked side by side and on top of each other in transit, which in turn adversely affects the produce either from the protruding raffia prongs puncturing the tomatoes or from the tomatoes getting squashed. It is estimated that about 40% of postharvest losses are attributable to poor packaging practices.

The alternative and the standard packaging for FFVs globally, particularly for long distance travel and marketing is the **reusable plastic crates (RPCs) that are stackable and nestable**. They are perforated plastic containers made with high-density polyethylene (HDPE) to help the crates withstand high temperatures. The perforation allows for better aeration of the RPC contents thereby preventing heat generation. The plastics are also designed to sit on one another (Stackable) rather than sit on the contents of the crates beneath with some designed to sit in one another when empty (Nestable) thereby reducing the space required to convey the crates for reuse. The aforementioned are some advantages over the raffia basket as it helps reduce the percentage of tomatoes damaged in transit thereby leading to more income for the farmers and dealers of tomatoes. However, the relatively high cost of RPCs is a factor that discourages potential users from purchasing them and the belief that its use takes away the source of income/livelihood of basket makers and sellers. The socio-economic impact of replacing raffia baskets with reusable plastic crates (RPCs) on the livelihoods of basket makers and related actors and stakeholders must be properly investigated and it is on this premise that GAIN-PLAN is requesting for proposals for an assessment on this.

2. OBJECTIVES

The principle objective of this research is to assess the potential socio-economic impact of replacing raffia baskets with RPCs on the livelihoods of basket makers and related actors and stakeholders in Nigeria. The socio-economic assessment should deliver a persuasive impact report with effective tables, graphs and photos, and video clips where found important for best illustration.

The assessment should be divided into the following tasks:

- Task 1: Literature Review and Methodology Development
- Task 2: Data Collection and Field Survey
- Task 3: Assessment Report and Recommendations

3. SCOPE OF WORK

To implement the required work, GAIN, through the PLAN-Nigeria project, invites **individual consultants or consultancy firms** to submit a proposal that adequately addresses the SOW as detailed below. The Consultant will work under the general guidance and supervision of the PLAN Nigeria Senior Project Manager and in coordination with the PLAN Nigeria team to deliver on the proposal.

Task 1: Literature Review and Methodology Development

The Consultant is expected to undertake necessary literature review to design and conduct surveys to adequately assess the potential socio-economic impact of the use of RPCs on the livelihoods of basket makers and associated businesses in Nigeria. Task 1 should consider past or current projects that involve the replacement of raffia baskets with RPCs; and should contribute to, but not limited to for example:

- Conducting an in-depth review on the replacement of raffia baskets with RPCs. This should include types of other packaging materials used for handling FFVs but with focus on RPCs, companies producing them, sizes, packaging material and durability
- Identifying socio-economic determinants of choice of livelihood activity and describe the socio-economic characteristics of the basket makers
- Identifying all livelihood activities that the basket makers are involved in and other potential areas they could explore within their communities e.g other uses for raffia/oil palm fronds
- Stating and Developing the methodology for conducting the surveys and the survey areas

Task 2: Data Collection and Field Survey

Based on the plans developed in Task 1, the Consultant will conduct field visits for surveys and interviews especially in areas where the livelihoods of basket makers are expected to be affected by past or present projects on RPCs usage and promotion. A representative survey shall be designed and implemented. The Consultant should also consult with all key actors and stakeholders that are involved in related projects. Data on estimated number of basket makers, States and LGAs of makers and dealers, types of raw materials used for basket making (raffia, oil palm fronds, estimated number of raffia baskets made

annually or in circulation, sizes of the baskets and their respective volumes and quantity of produce they can hold (KG using tomato as proxy), number of baskets required to fill a truck (911, Trailer etc), supply chain aspects-cost of new baskets/size, transportation mode and cost to place of use across the country, life cycle for use in handling fresh fruits and vegetables, impact of baskets use on PHL loss, food safety concerns, cost-benefit analysis between raffia baskets and RPC usage over a 2-5 Year period, environmental issues of both packaging materials usage, and sustainability issues and GAP/SWOT Analysis of both the Raffia Basket and RPC supply chain sector, RPC manufacturers details and their RPC characteristics should be evaluated-dimensions, installed production capacity(individual/combined), range of RPCs manufactured, locations, whether stackable or nestable, other uses other than for FFVs for same crates should be elicited and reported.

Task 3: Impact Report and Recommendations

The final task is the analysis of the results and the preparation of an impact report and an extensive analytic report. The impact report should contain effective graphs, infographics etc. that can be used in presentations and photographs that help readers grasp the information at a glance. This report should blend the primary data on raffia basket makers and the secondary data on RPCs together in the analysis. The target audience are donors, policy makers, RPC manufacturers, and the public, including the basket makers; so, the report narrative should cater to this. Existing, new/upcoming projects should also be identified to allow the PLAN project team create synergies where relevant.

The reports should first be prepared in a draft format for GAIN's review and then a final revised report for submission.

4. TIMELINES

The proposed timeline is to complete the assessment by **January 31, 2019**

5. SUBMISSION OF PROPOSAL

This assignment is open for individuals or any legal organization (research/academic institution, private firm etc.) with qualifications in providing analytical research and impact evaluation in the field of socioeconomic assessment. At least one major project in fields related to the contract in the past three years, and in the following fields is required:

- Socio-economic analysis
- Project evaluation
- Information collection, field surveys and statistics

5.1 Content of Proposal

Proposal will include:

5.1.1 Workplan: The consultant is requested to provide a preliminary proposed project work plan covering all the activities, tasks, duration and schedule per task and per site. Upon contract award, the

Consultant shall provide a revised project work plan, if necessary. Once agreed upon, the workplan shall be adopted and shall form the basis for project supervision and monitoring. The plan shall be presented by the Consultant and discussed through a kick off meeting, prior to the initiation of the tasks.

5.1.2 Budget: Provide a budget in US Dollars or Naira, broken down by main cost categories (Personnel, travel, operational, and indirect costs). Include a brief narrative justification for line items included. The budget will not exceed **USD 20,000.00** inclusive of all taxes/VAT and indirect costs (*Table plus no more than 1 paragraph narrative*).

5.1.3 Curriculum vitae for lead personnel should be submitted; as well as team composition and structure with their recent CVs. The requested team should have diversified skills.

5.1.4 A cover letter stating how the applicant's qualifications, expertise, and experience relevant for the successful execution of the proposed assessment (no more than 1 page)

5.1.5 A letter on letterhead, indicating that a formal offer of services is being made about this request.

5.2 Instructions for responding

Proposal will be submitted in English in electronic copy and addressed to Dr Augustine Okoruwa at aokoruwa@gainhealth.org. Please include **PLAN Assessment of Raffia Basket Replacement with RPCs** in the subject line. Requests for additional information can be directed to the same e-mail address.

5.3 Summary of deadlines

- Proposal Submission Deadline: **November 9, 2018**
- Notification of acceptance from GAIN: **November 16, 2018**
- Award of contract: **November 26, 2018**
- Submission of Research Report: **January 31, 2019**