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FARMER-TO-FARMER
The USAID John Ogonowski and Doug Bereuter Farmer-to-Farmer Program

**FARMER-TO-FARMER
VOLUNTEER ASSIGNMENT FORM**

Summary Information	
Assignment Code	TT76
Country	Trinidad & Tobago
Assignment Title	Vertical Farming using Controlled Environment (Container) Agriculture Systems (CEAs)
Best dates for volunteer visit	After January 2023
Host Organization(s)	<p>Ministry of Agriculture, Land and Fisheries (MALF) Extension, Training and Information Services Division (ETIS) is mandated to provide information in aspects of agriculture and related issues with the aim of assisting farmers in increasing efficiency in production and hence increasing profitability. The Division continues to seek ways to improve the delivery of service to their clientele who are spread throughout the various counties on the island. Extension is divided into three main divisions: The Extension, Training and Information Services Division (ETISD) which is the core training and extension unit for the Ministry of Agriculture, Land and Fisheries, the Regional Administration North and the Regional Administration South. The ETISD is dedicated to the provision of guidance courses and demonstrations, providing farmers and all other interested persons with information on aspects of agriculture and related issues. This Division continuously holds a number of guidance/training courses and demonstrations which can be obtained at the Farmer's Training Centre in Centeno and at selected County Offices. The northern region is made up of St. George County, St. David County, St. Andrew County, and County Caroni. The southern region is made up of County Victoria, County Mayaro, County Nariva, and St. Patrick County. All Divisions share a common goal of providing a coordinated approach to the delivery of support services to all clientele while promoting and bolstering food production, to facilitate increased production, the adoption of improved technology and to encourage the involvement of youth, through the provision of extension and support services. Additionally, extension officers have the following responsibilities:</p> <ul style="list-style-type: none"> • Youth programs • Farmers registration • Food production and incentive programs <ul style="list-style-type: none"> • Advisory services • Training programs • Pest management • Farmers database



Assignment Information	
Objectives and Anticipated Results	<p>In view of the limited availability of land and the debilitating effects of climate change on field, soil and water conditions, many primary producers have been requesting training and interventions from the Extension Unit for the Ministry of Agriculture, Land and Fisheries (Regional Administration North and the Regional Administration South) extension officers. Based on this need, Extension North and South Regional officers wish to learn about Controlled Environment Agriculture Systems (CEAs) and the knowledge necessary to assist farmers with designing and implementing appropriate interventions such as vertical farming using sensors and machines that can measure and regulate variables like temperature, humidity, carbon dioxide, nutrient concentration and light.</p> <p>Currently, the offices' extension officers have limited knowledge on the above-mentioned topics and existing knowledge may have been based on individual research. Therefore, in response to this need, the Extension Unit for the Ministry of Agriculture, Land and Fisheries (Regional Administration North and the Regional Administration South) require staff training in:</p> <ul style="list-style-type: none"> • Design and development of a simple start-up (economic) CEA container • Simplified technical training in the sustainability of these CEAs • Designing and implementing appropriate interventions such as vertical farming using sensors and machines that can measure and regulate variables like temperature, humidity, carbon dioxide, nutrient concentration and light. <p>Through this training, extension staff will be better prepared to assist farmers diversify their farms, optimize small spaces, and increase sales. The extension offices need 4 months advance notice of materials needed in order to purchase supplies.</p>
Expected Deliverables	<ul style="list-style-type: none"> • Hands-on experience –designing and implementing appropriate interventions such as vertical farming using sensors and machines that can measure and regulate variables like temperature, humidity, carbon dioxide, nutrient concentration and light. • Provide materials to members for all subjects • Debriefing with country staff and Purdue after assignment • F2F Assignment Report and F2F Recommendations Form to be completed at the end of the assignment (completed for debriefing with staff) • Sign-in sheets for training sessions (work with Field Coordinator) • One outreach activity (news article, interview, presentation, etc.) about your F2F activity. • If applicable, “like” the Purdue F2F Facebook and Twitter pages and share your experience.



Desired volunteer skill/expertise	<ul style="list-style-type: none"> • 5 years of experience in vertical farming • Experience training adults in low-income communities • Experience working in a developing country preferred • Flexibility • Language: Proficient in English
Training Participants	About 20 participants extension officers of Extension North and South Regional Offices
Resources to be Contributed by Hosts and Local Partners	<ul style="list-style-type: none"> • Provide in-country transportation, office space for meetings, and facilities for training and/or workshops; and • Provide supplies, equipment, and other resources for training activities. • Access to computer, projector, and screen
<i>Farmer to Farmer Objective(s)</i>	<input checked="" type="checkbox"/> Increase agricultural sector productivity and profitability <input checked="" type="checkbox"/> Improve conservation and sustainable use of environmental and natural resources <input type="checkbox"/> Expand agricultural sector access to financial services <input type="checkbox"/> Strengthen agricultural sector institutions
<i>Type of Volunteer Assistance</i>	<input checked="" type="checkbox"/> Technology Transfer <input type="checkbox"/> Organizational Development <input type="checkbox"/> Business/Enterprise Development <input type="checkbox"/> Financial Services <input type="checkbox"/> Environmental Conservation <input type="checkbox"/> Administrative
<i>Type of Value Chain Activity</i>	<input checked="" type="checkbox"/> Information and Input Support Services (extension services, input supplies, veterinary services, etc.) <input type="checkbox"/> On-Farm Production <input type="checkbox"/> Processing (primary and final product transformation, storage, transportation, etc.) <input type="checkbox"/> Marketing (branding, advertising, promotion, distribution, sales, etc.)
<i>PERSUAP – Volunteer Assignment Type</i>	<input type="checkbox"/> Type 1 Volunteers provide direct assistance for the use or procurement of pesticides and are likely to recommend and/or provide advice on specific pesticide active ingredients or products. <input type="checkbox"/> Type 2 Volunteers provide indirect assistance for the use or procurement of pesticides; they are not expected to recommend or provide advice on specific pesticide active ingredients or products. <input checked="" type="checkbox"/> Type 3 Volunteers are not expected to be involved in pesticide issues. <input type="checkbox"/> Type 4 Volunteers work on a separately-funded USAID project/activity which may have a PERSUAP governing its operations related to the use and procurement of pesticides.



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Volunteer Information	
Recommended Preparation	<ul style="list-style-type: none"> • Please thoroughly read and follow the instructions provided in the volunteer orientation packet. • Let field staff know if you need assistance or accommodations.

Project Overview
<p>Trinidad and Tobago is a two-island country of a diverse population with rich history and culture. As an island nation, it is under the constant mercy of changing climate that is affecting natural resources and agriculture. At present, it is a net food importing country forcing the government to refocus its attention on sustainable agriculture as a part of its 2030 country development strategy. The tropical climate and available natural resources, if used properly, can make the country self-sufficient in vegetables, root crops and some fruits with a provision to export value added products. It is an opportune time for F2F volunteers to engage with agriculture extension officers and farmers to impart knowledge and learn about the culture and endurance of Trinbagonians. The objective of the F2F Trinidad and Tobago Country Program is to improve food and nutrition security through productivity, safety, and profitability as well as strengthening the extension service through capacity building.</p>