



2021



**WORLD EVALUATION CASE COMPETITION**



**Assessing the value added by a community garden approach to address food system inequities in Belize**

## The 2021 Case Scenario

The Ministry of Agriculture in Belize has supported the establishing of a Community Gardening Project as part of its food security strategy. The project aims to strengthen the basis for understanding the role of community gardens in addressing food system issues during the current pandemic and in future national emergencies.

Your challenge is to provide the leaders of the Belize Community Gardening Project (BCGP) with advice on how they would go about assessing the value added by their current approach to strengthening food security in Belize. The BCGP initiative is still being rolled out, so there is not a lot of information and data available.



*This case was developed by a group of WECC organizers using material that is freely available in the public domain or was provided to them by leaders of the Belize Community Gardening Project. It is intended strictly for educational purposes.*

# Preparing a Submission

## **Language**

Submissions may be in English, French or Spanish. Each submission will initially be assessed by two judges who are fluent in the language of the submission. In the event that a submission in French or English subsequently merits a review by all judges, the team will be required to produce an English translation.

## **Amount of time**

Teams whose working language is English will have seven (7) hours to prepare their submission. Teams preparing their submission in French or Spanish will have eight (8) hours. Other teams will have nine (9) hours. All teams will have 15 minutes leeway to allow for difficulties encountered in downloading the case or uploading submissions.

## **Anonymity**

Do not include in your submission any information that might reveal to the judges your institution or your country. Be sure that the logo of the team does not give away its location. A team should identify itself only by a pseudonym (e.g. BrightFutures). Your team's name must be shown clearly at the beginning of your submission.

## **Format of submission**

Your submission may be a regular text report, a PowerPoint slide presentation (with or without narration) or a video. Teams that do not respect the following technical requirement for their submission may have their score reduced by up to 5%.

#### *Regular text report*

- **Maximum 12 (twelve) pages** including tables and diagrams. Any cover letter, cover page, or table of contents is not counted.
- Page size: A4
- Minimum margin size: 2.54 cm (1 inch) on all sides (left, right, top, and bottom)
- Minimum font size: 12 point for text, 10 point for tables or figures.

#### *Slideshow presentation*

- Minimum font size: 16 point for text, 14 point for tables and figures
- Non-narrated presentation: no more than 25 slides, in English, French or Spanish
- Narrated presentation: 15 minutes maximum. Slides and narration must be in English to be accessible by all judges

#### *Video*

- 15 minutes maximum. Must be in English to be accessible by all judges.

### **Inputs**

Teams are free to access the Internet and use reference materials. If you provide references, you may use any format, e.g., MLA, APA or Chicago, but please be consistent. A team is not allowed to consult with its coach or any other advisor while preparing the submission.

### **Dealing with problems**

If the team encounters serious unexpected difficulties, such as a long period without internet connection, ensure that a third party, such as the team's coach, is informed of the nature and duration of the disruption. The team should contact [worldcasecomp@gmail.com](mailto:worldcasecomp@gmail.com) to report the problem and ask for an extension of time.

## Delivering Your Documents

### --- The submission file ---

The submission must be one file, not a zipped file of multiple documents. Label the file with your team name, e.g., *Teamname.pdf* for a text file or *Teamname.pptx* for a PowerPoint file.

If your submission file is very large, as may be the case for a video or a narrated PowerPoint presentation, you have the option of uploading a one-page pdf in which you provide a link to your work wherever it has been stored on the Web, for example, on Google Drive, YouTube or Vimeo.

### --- Sending the file ---

Upload your submission via the same link that your contact person used to download the case. The upload will be automatically acknowledged.

For backup, send the submission as an email attachment to the WECC administrators at [worldcasecomp@gmail.com](mailto:worldcasecomp@gmail.com). You may expect your email to be acknowledged within a few hours.

## Info Provided Earlier

The following information was sent to all teams on or about October 30, 2021:

*This year's case will focus on the issue of food security. Your challenge will be to develop advice for an organization focused on addressing food insecurity through a community gardening project. Here are some links that may be helpful as your team searches the web for information on the topic of this year's case.*

- From a search of "food insecurity around the world"
  - United Nations document <https://www.un.org/en/global-issues/food>
  - World Hunger Map  
[https://docs.wfp.org/api/documents/52c3c66390dc436da192ea782a2bdb3d/download/?\\_ga=2.34377441.1586008001.1630933398-174952146.1630933398](https://docs.wfp.org/api/documents/52c3c66390dc436da192ea782a2bdb3d/download/?_ga=2.34377441.1586008001.1630933398-174952146.1630933398)
  
- From a search of "community garden projects around the world"
  - <https://foodtank.com/news/2015/07/urban-farms-and-gardens-are-feeding-cities-around-the-world/>
  - <https://borgenproject.org/community-gardening-projects/>
  
- From a search of "conducting evaluations during covid-19"  
<https://www.fao.org/evaluation/highlights/highlights-detail/en/c/1268896/>

## The 2021 Case

### Assessing the value added by a community garden approach to address food system inequities in Belize



### Understanding Food Security

According to a definition given by the United Nations Food and Agriculture Organization (FAO), “a food system encompasses the entire range of actors and their interlinked value-adding activities involved in the production, aggregation, processing, distribution, consumption and disposal of food products that originate from agriculture, forestry or fisheries, and parts of the broader economic, societal and natural environments in which they are embedded”. Food system activities are grouped into four categories: producing food, processing and packaging food, distributing and retailing food, and consuming food.



Food security is an outcome of the food system. It exists when all people, at all times, have physical and economic access to sufficient safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. Food security can be analyzed from any scale, from an individual to a nation. It encompasses food availability, access to food, and food utilization. Maintaining food security requires sustainable solutions to ensure that the food system works for all of the population in any circumstance.

Over the last two years, the COVID-19 pandemic has increased global food insecurity in almost every country by reducing incomes and disrupting food supply chains. Prior to the pandemic, there were already hundreds of millions of people who were chronically food insecure. The economic shocks from COVID-19 have impacted producers and agri-businesses as a result of restrained production capacity, limited access to markets, and other factors. At the same time, the world is facing natural disasters, humanitarian conflicts, and a global climate crisis, all of which continue to exacerbate the impacts of food insecurity.

The ideal world is one that is free of hunger and malnutrition, where agriculture and food contribute to improving the living standards of all, especially the poor, in ways that are sustainable from all perspectives - economic, social and environmental.

## **Food Insecurity, Health and the Economy – Belize**

Country profile (2005): <http://www.new-ag.info/en/country/profile.php?a=847>

Food insecurity is a public health problem. A strong body of evidence links food insecurity to a wide range of negative health outcomes, such as malnutrition, obesity, anemia, disrupted cognitive development, high blood pressure and mental health problems. In Latin America and the Caribbean, 7.3% of children are overweight by age five (5). In Belize, 9% of children who are overweight or obese are in the south side of Belize City where poverty is the highest. Many Belizean homes do not have sufficient space for children to



play or move around, and lack access to fruits and vegetables which tend to be more expensive than foods high in sugar and salt.

Belize also faces gendered differences in economic opportunity that contributes directly to poor nutrition and hunger. The unemployment rate for the women of Belize is nearly three (3) times higher than the national average. Gender inequality has deprived mothers of the resources necessary for raising healthy children, and they lack education about proper diet and exercise. It is evident that food systems play a critical role in protecting people's health and wellbeing. Finding sustainable ways to produce nutritious food that is accessible to the whole population remains a priority to improve a population's health and boost the agricultural economy.

Belize is looking to strengthen its response to the socioeconomic hardship caused by food insecurity by investing in the country's agricultural sector. Agriculture accounts for 13% of Belize's GDP and 10.2% of its employment. Around 38% of Belize is suitable for agriculture; 7% of that is currently utilized for farming.

One of the biggest challenges faced by agriculture is ageing of the population of farmers. In the Caribbean and Latin America, the profile of a farmer is a male, ranging from 41 to 54 years, operating on two hectares of farmland. In Belize, there is an attempt to develop programs to attract young people to the agriculture workforce and alleviate the high unemployment rate for young people. It was 23.3 % in 2015. Bolstering economic recovery through a younger agriculture workforce help bring energy and new ideas to transforming food systems in Belize.

Given the disruption of food systems caused by the pandemic, and the high probability of other crises in the future, there is a critical need for adaptive, sustainable and resilient food systems. The Government of Belize accepts the global sustainable development goal of "adopting innovative practices within the agricultural sector to regain food security."

# The Belize Community Gardening Project

- Teams: Be sure to visit the BCGP Facebook page!  
<https://www.facebook.com/BelizeCGP/>

## Organization History and Background



The project is the brainchild of David Almendarez, a dynamic entrepreneur who has operated a tour service for cave tubing and other recreational activities since 2005. He became President of the Federation of Cruise Tourism Associations of Belize (FECTAB) in 2020 and is also President of the General Tour Guides Association (GTGA).



Another key actor is Melissa Almendarez, a project officer in the Ministry of Agriculture, and Belize's national correspondent with the FAO.

Before the COVID-19 pandemic the economy of Belize was heavily dependent on tourism. It accounted for 21% of Belize's GDP and 28% of jobs. Many tourists came ashore from large cruise ships, approximately 330 per year, that would anchor near Belize City. When cruises were cancelled during the pandemic, people supported by tourism, such as taxi drivers, tour guides, hairdressers, artisans, etc., were out of work.

As a short-term response to food insecurity caused by the pandemic, Belize attracted low cost loans and distributed them as financial relief and food pantry programs. But this was unsustainable.

The Almendarez vision was to provide employment opportunities for persons who had been working in the tourism industry by creating an agricultural and aquaculture centre with greenhouses and fish ponds. The centre would not only produce vegetables, provide seedlings to communities, and produce tilapia, but would also serve an educational function, offering



technical instruction in garden agriculture and aquaculture. In addition to the direct employment provided by the centre, the training that it offered would enable participants to find work in agriculture or set up their own food production facility. Hence the Community Gardening Project.

The designers of the project also envisioned the centre as a possible tourist attraction after the pandemic. It would provide visitors an opportunity to get to know a community garden and enjoy fresh local foods in a restaurant nearby. This aspect of the project has been called “agro-tourism”.



Intensive planning began in August 2020 to establish the centre near Hattieville, about 27 kilometres west of Belize City. The centre would be designed to host training groups of 10 to 20 participants.

It was expected that the initiative would provide meaningful employment, build awareness about healthy eating habits at the community level, promote good agricultural practices, and respond to a niche market for food production and processing.

The BCGP also aimed to help inspire a new generation of farmers and be recognized as a valid mechanism for helping to meet food needs in the region.

Training at the centre would cover food production, storage, processing, transportation and consumption. The reach of the training would be broadened through videos that capture the technical expertise and experiences shared in the training sessions.

## **Developments from 2020 to Present**

By early 2020 Almendarez and colleagues had a design for the BCGP site, an inventory of requirements, and a concept document describing and promoting the project. They quickly began organizing in-kind and financial contributions.

A building supply company provided materials for a first covered structure. A radio and TV network agreed to provide promotion and production of videos. The owner of a road construction company contributed advice to the project and a local quarry owner provided raw materials for preparing the grounds. A short video at the BCGP Facebook site indicates the extent of in-kind support that was donated by a wide range of sponsors.

### [Thank you to Sponsors](#) of BCGP

By the end of 2020, some structures had been erected and the ponds had been dug and filled by rain water. In March 2021, as President of FECTAB and GTGA, David Almendarez requested from the Ministry of Agriculture, the following support:

- A cover structure with irrigation lines
- Hydro lines and technical officers for their installation
- Seeds, seed trays and technical officers to establish seedlings
- Tilapia fingerlings provided by the department's Aquaculture Unit
- The time of officers from the Horticultural Unit for delivery of training sessions.



The Ministry responded favourably. Construction continued, planting commenced, and the ponds were stocked with fingerlings. As of August 2021, peppers and fish have been harvested and a first training session has taken place.

## **Main Activities**

### *Community Engagement & Youth Workshops*

The gardening project provides produce as well as seedlings for people in the community to grow their own food, all the while helping to interest children and youth in agriculture. For the future, the project aims to engage youth through participatory workshops.

In the past, Belizean youth have commented on the lack of access to land, high quality services, and the financial and non-financial support needed for

them to join the agricultural system. Direct engagements with youth, through fieldtrips to BCGP for example, will give them an opportunity to inquire about agriculture as a career and understand its challenges.

### *Technical Training*

Training at the BCGP will include explanation and demonstration of how to farm and how to manage a tilapia fishery. Agro-production requires a high level of understanding of agricultural practice and resilience to threats such as droughts. Workshops held in the demo site will offer a hands-on experience. Courses will cover the entire food supply chain: planting seed or stocking a pond with fingerlings, buying fertilizer and fish feed, using technology, marketing, and selling.

### *Identifying Green Spaces*

Green spaces are needed to expand the project to other municipalities. The project team is developing plans for engaging with communities and their councils to implement BCGP-type operations.

## **Costs and Funding**

### *Estimated Start-Up Costs*

In the 2020 concept document, and again in the March 2021 letter to the Ministry of Agriculture, the cost of the project is estimated at \$106,500 (Belize dollars).<sup>1</sup> In the letter there is also mention of the fact that the tangible and intangible contributions by BCGP sponsors could be valued at about \$75,000.

### *Potential Funding*

#### **FAO Support for Belize**

The FAO has in the past provided funding to Belize to support development in four priority areas. The BCGP is relevant to two of them: 1) food and nutrition security, and 2) promoting sustainable and resilient food systems.

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<sup>1</sup> A Belize dollar is approximately half (0.5) of a USA dollar.

## **Caracom Support for Belize**

In 2019, the Caracom Development Fund, an organization that funds development in the Caribbean Community, agreed to provide \$198,495 (US dollars) for a program to be delivered by the Belize government starting in 2020. The program, known as the Covered Structures Project, was to enable the acquisition of materials and construction assistance for at least 30 greenhouse structures, as well as the provision of vegetable production training to at least 30 farmers, targeting women and disadvantaged youth in rural or depressed communities.

## **Your Team's Task**

You are to prepare advice for the leaders of the Belize Community Gardening Project on how they could assess the contribution of BCGP to food security in Belize.

The impact of the project will of course depend not only on the outputs from the community gardening project in Hattieville but also on the extent of adoption of the project model by other communities. Further, it would be affected by economic, social and cultural differences at each site.

## **Structuring Your Submission**

We would like you to structure your submission as follows:

### **1. Situational Analysis**

- Demonstrate your understanding of food security systems, food insecurity issues in Belize, and the impacts of COVID-19.

### **2. Theory of Change**

- Using narrative and a logic model, demonstrate your understanding of BCGP objectives and how they could be achieved.
- Identify areas for behavioural change sought through this intervention, ways in which they may be facilitated, and barriers to be overcome.
- Describe how this project could support gender and societal equity.

### 3. Sustainability

- Identify factors that will contribute to the sustainability of this project.
- Discuss variables that could enhance or impede adoption of the BCGP model by other communities.
- Convey any ideas from the team for enhancing the BCGP model and its take-up elsewhere.

### 4. Monitoring and Evaluation

- Discuss how to track performance of the project over time, mentioning key indicators of progress.
- Indicate the three most important evaluation questions and how they might be addressed.
- Identify possible barriers to monitoring and evaluation and how they might be mitigated.
- Provide advice on how to assess the BCGP without increasing risks of exposure to COVID19.

## Guidance

- The BCGP is still being rolled out so there is not a lot of data for you to consider. Make good use of your team's imagination and common sense. Any carefully considered advice from your team, which has the advantage of viewing the project from a distance, could be useful to the BCGP leaders who are embedded in it.
- **Be innovative and creative.** The WECC judges will be looking for and assessing innovativeness and creativity in all aspects of your proposal.
- **Aim for clear, concise communication.**
- **Be aware of the rating criteria** (next page).
- **Take photos.** Organizers of the competition greatly appreciate photos of team members working on the case - either collaborating in person or



online. If you are willing to share photos with the competition organizers, please send them in a separate email to [worldcasecomp@gmail.com](mailto:worldcasecomp@gmail.com) after you have submitted your proposal. Be sure to identify “who is who” in the pictures.

- **Have fun! Support each other!**

## Rating Criteria and Weights

Assessment Area	Criterion	Weight
<b>Situation analysis</b>	Understanding of food security, issues of food insecurity in Belize, and the project as a response	<b>20%</b>
<b>Logic, practicality and methodological strength</b>	Narrative and model covering the logic for BCGP	<b>20%</b>
	Gender and societal equity	<b>10%</b>
	Sustainability and adoption of the model in other locations	<b>10%</b>
	Project monitoring indicators, evaluation questions, and methodologies	<b>20%</b>
	Challenges to an evaluation of the project and ideas for mitigating them	<b>10%</b>
<b>Effectiveness of presentation</b>	Clarity and flow of ideas; impact on the reader	<b>10%</b>
		<b>100%</b>

## Constructing the Demo Site



## Produce and Fish



# Training

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