

Cocinando & Conservando:

Building Capacity to Improve Cultural and Ecological Conservation



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Cocinando & Conservando: Building Capacity to Improve Cultural and Ecological Conservation

Area of Inquiry

In remote areas, how do we develop nutritionally balanced food systems that are also sustainable for the environment? Worldwide, enough calories are produced to meet basic dietary needs for every person on the planet; however, one in eight people do not have access to sufficient food (FAO et al., 2017). In the most remote areas, food-price volatility persists and threatens the residents of these areas (Tomlinson, 2013). Montanari (2006) suggests that tradition and innovation intersect through food. With this understanding, chefs are positioned as agents of change within the food system through their understanding of local produce, its availability, nutritional value, and commercial uses (Pereira et al., 2019).

Cocinando y Conservando

Located within the Madre de Dios Department of Peru, Cocinando & Conservando (Cocinando) uses agroforestry models based on the conservation and sustainable use of the surrounding Amazon rainforest to not only help local communities become nutritionally self-sufficient, but also find sustainable ways to commercialize endemic vegetation. Madre de Dios, and its capital- Puerto Maldonado are considered the southern gateway to the Amazon in Peru. While economy within Madre de Dios is primarily agriculture, ecotourism is an emerging economy for the area, with many companies offering eco lodge stays that include activities such as zip lining or sky-bridges. Because of the remote nature of the region, Madre de Dios does not have any significant manufacturing presence, which leads to a lack of job opportunities. As a result, illegal gold mining is common along the Madre de Dios and Malinowski Rivers- culminating in significant pollution to the environment and creating health problems for miners and area residents (Riquelme, 2021).

Founded in 2016 by Chef Roy Riquelme, his sister Ruth and her husband Boraim Valera, Cocinando works to educate others about the damage being done to the rainforest and promote the sustainable use of the jungle produce. Cocinando recognizes the reciprocal relationship between the rainforest and indigenous groups and demonstrates how the sustainable management of the rainforest's natural resources helps to preserve the culinary cultures and traditions of regional indigenous people. Cocinando preserves Amazonian food culture through curating the cultures and traditions as expressed by local residents and sharing those traditions and food usage with other groups.

Cocinando's mission is to create a future more committed to good food and sustainable development for the benefit of Amazonian peoples and communities (R. Riquelme, personal communication, Jan 30, 2022). To date, Cocinando's educational efforts have targeted the preservation of the rainforest floor in the Las Piedras district. Their main source of income is ecotourism, however, due to the global COVID-19 pandemic, tourism to the Madre de Dios region decreased considerably. The region is still being impacted economically by the pandemic as the tourist industry has not yet fully recovered. As a result, Cocinando is pushing to diversify its preservation efforts through a range of grants and the sustainable commercialization of local agriculture. To date, these efforts have been modest and focused primarily on the preservation of food culture rather than the commercialization of products.

The shift in focus has created a natural division within Cocinando- with outreach efforts focused more on working in local communities and educating them about the produce that the rainforest provides, and hospitality efforts to attract visitors to Casa Malinowski, which serves as the operational headquarters for Cocinando. Casa Malinowski is managed by Ruth and Boraim. The rustic jungle lodge

accommodates 15-20 visitors, and sits on over 200 acres of land across the river from the Tambopata Natural Preserve. They employ their older children and other former gold miners to maintain trails within the rainforest, document any destruction caused by mining activities, educate current miners about the impacts of mining, and lead excursions into the rainforest to show visitors both the natural splendor of the forest, and the damage being done by the mining activities.

Cocinando's outreach efforts require Roy to travel to various indigenous communities within the region in order to teach them about the produce that the rainforest can provide. The communities where Cocinando operates typically do not have the resources available to be self-sufficient. Cocinando partners with other aid organizations to provide a multi-disciplinary approach to meet the needs within each respective community. By promoting the knowledge and skills of indigenous women in the Las Piedras region, Roy teaches others about the local culture and cuisine that have developed from generations of people living in harmony with the rainforest. These lessons help spread the knowledge regarding the benefits and usage of local flora and fauna between communities within the region, but also to tourists who come to the area and are able to see first-hand the value in, and necessity of, preserving the rainforest. Cocinando's long-term goals include the creation of a network of communities that allows for better transfer of information between the community, while also empowering the communities to share their culture, tradition, and way of life with visitors.

Cocinando aspires to help local residents develop an economy that prioritizes the sustainable use of the rainforest and the preservation of indigenous culture in a way that will reduce the need for many to leave their communities to engage in illegal mining or look for opportunities in Puerto Maldonado. The lack of economic opportunity in the region forces many to engage in mining activities to support their families. The mining causes severe damage to the surrounding rainforest and the runoff flows into rivers, causing additional damage to villages and animals downstream who depend on the water (R. Riquelme, personal communication, Jan 30, 2022). Cocinando believes that food and medicinal supplies produced by the rainforest can be sustainably harvested to not only sustain the local population, but also use the additional produce as an income source for the families of the region.

About Madre de Dios

Madre de Dios is the third largest department in Peru, located in southeastern Peru and bordering Brazil and Bolivia. While it is one of the largest departments in the country (32,934 sq. mi), it is also the least populated (161,204 in 2017). Roughly half of the department's population reside in Puerto Maldonado. The remainder of the residents are located small villages and communities scattered throughout the department. Spanish is the dominant language in the region, though many residents in indigenous communities speak it as a second language.

The majority of the department is located in the low-laying Amazon rainforest. The high degree of vegetation, combined with limited infrastructure results in semi-isolated communities, which do not expand beyond the bank of the Madre de Dios River. Transportation is done via riverboat ferries that move between villages and trading posts.



Figure 1: Locator Map of Madre de Dios Department in Peru (Huhsunqu, 2010, CC BY-SA 3.0)

Problem of Practice

Cocinando does not have internal systems that allow for recording and measuring the impact or effectiveness of their programs. By their own accounts, Cocinando uses a ‘shotgun’ approach when implementing programs within a community (R. Riquelme, personal communication, Jan 30, 2022). They do not engage in projects systematically. Instead, they will begin a project without a specific goal or objective in mind. Similarly, they are not able to take lessons learned from one project and apply them to another similar project. The lack of systematic recording results in programs that are discrete events- Cocinando does not have a system for continual evaluation and improvement. A program implemented in one community does not inform Cocinando with respect to implementing a subsequent program in a different community. When Cocinando begins working in a community, there is not a question of what works, for whom, and under what conditions. Instead, a program is developed based on ‘what feels right’ (R. Riquelme, personal communication Jan. 30, 2022). The lack of any internal tracking or metrics that help determine the effectiveness of any given program may be limiting Cocinando’s ability to implement programs that impact a broader region because the lessons or takeaways from one program are not adapted and applied to programs in other communities. Understanding how the various steps taken within programs implemented by Cocinando impact the respective communities will help Cocinando understand how it can design programs in the future that form a cohesive network of complementary programs. If Cocinando continues to implement stand-alone programs, it may be unable to achieve the long-term sustainability goals that it desires at an organizational level.

Creating a framework that helps Cocinando sustainably build towards the future begins with understanding what they have done in the past. This begins by finding common themes among the various projects with respect to:

- The type of project undertaken
- The goals and objectives within each respective project
- Who was involved (stakeholders)
- The methods undertaken
- Successes and failures within each project
- Lessons learned
- Subsequent steps

Quantifying the various aspects of Cocinando’s previous projects would allow them to create a system that they can use to approach future projects, but also offers an opportunity for Cocinando to utilize lessons learned from similar efforts from around the world. From efforts to improve the economic viability of indigenous food systems (Cotta, 2017; Pereira et al., 2019; Goncalves, Schlindwein, & Martinelli, 2021; Farfan, Chau, & Torres, 2021) to the role of women in preserving food culture (Singh, Rallen, & Padung, 2012; Goncalves, Schlindwein, & Martinelli, 2021) to ‘de-colonizing’ people’s diets (Blanchet et al., 2021; van der Hoeven et al., 2013; Farfan, Chau, & Torres, 2021) there are potentially a number of lessons Cocinando could learn from the existing research that would help them grow while remaining true to their core values.

Literature Review

Introduction

For Cocinando, before they can develop systems that allow for recording and measuring the impact of their projects, they should understand the potential impact of their projects. Cultural heritage and cultural landscape are two distinct frameworks used to understand the broader societal structures of people (Wang, 2020). Cultural heritage depicts the intangible values and traditions of a people, while cultural landscape presents the values of a people through tangible places or objects (Hung et al., 2021; Wang, 2020). Food- and agriculture, in general, tangibly represent the values of a people and their relationship with the surrounding environment (Wang, 2020; Montanari, 2006). However, throughout history, during wars of conquest, both the heritage and landscape of the conquered peoples were frequently altered to support the heritage and culture of the conquering people- especially if their traditions and values were passed orally (Montanari, 2006). These traditions included a society's knowledge of indigenous and traditional plants, which formed the backbone of their food and medical traditions (van der Hoeven et al., 2013). As new colonial economies were established, agricultural production shifted away from the agrobiodiversity of locally occurring crops to a monoculture of cash crops that would be used to support the people from the conquering culture, while frequently leaving the indigenous group in a state of food insecurity (Goncalves et al., 2021; Farfan et al., 2021, Blanchet et al., 2021). In modern times, the increasing rate of urbanization along with the continued economic reliance on established cash crops further distance the people from the cultural landscape that allowed them to thrive in the first place; urbanization leads to a dependence on highly-processed, store bought foods and perpetuates a power imbalance as the global food market does not supply the basic dietary needs of the people (Pereira et al., 2019; Farfan et al., 2021; van der Hoeven et al., 2013; Blanchet et al., 2021; Cotta, 2017).

Recent efforts to address this power imbalance have sought to preserve both cultural heritage (Ognjanovic et al., 2019; Singh et al., 2013; Ali, 2016; van der Hoeven et al., 2013, Anasi et al., 2013, Forutnani et al., 2018) and cultural landscape (Goncalves et al., 2021; Wang, 2020; Roba, 2019, Ba et al., 2018) as individual aspects of cultural preservation. The cultural heritage efforts focus on methods of recording the knowledge and values of different groups, while cultural landscape efforts focus on the methods of tool creation or interacting with the surrounding environment. The manner in which people interact with their surrounding environment is a function of their heritage; similarly, people's heritage is a product of their environment (Montanari, 2006). The resulting cycle of people being shaped by the environment, who in-turn shape their environment, which further shapes the people leads to the development of societal structures broadly known as Culture (Montanari, 2006; Pereira et al., 2019). Recognizing this relationship, some efforts have worked to preserve the knowledge imparted by cultural heritage, while also working to conserve the physical cultural landscape (Hung et al., 2021; Pereira et al., 2019; Blanchet et al., 2021, Cotta, 2017; Susilawati et al., 2020). Food, as a connector in the above relationship gives transformative power to *"those with the knowledge to make it delicious"* (Pereira et al., 2019). Chefs¹ have used their position within the culinary sphere to promote the 'slow food' movement (AKA farm-to-table or farm-to-fork), which provides fresh food that has been sustainably drawn from the region (Pereira et al., 2019; Munjal et al., 2016). A chef who utilizes the knowledge systems within indigenous cultural heritage, is positioned to innovate and create a heritage of continuous learning regarding the dynamics of social-ecological systems at the local level while understating its place within the global food system (Pereira et al., 2019; Chapin et al., 2010; Folke et al., 2016).

¹ I will copy Pereira et al. (2019) use of the term "chef" to include both people who have been trained to run a professional kitchen, and the home cook, whose duties may be limited to making the daily meals for their family.

Traditions and Values of Cultural Heritage

The United Nations defines cultural heritage as *“the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage”* (UNESCO, 2003, p.5). There are five components that comprise a group’s cultural heritage:

1. Oral traditions and expressions
2. Performing arts
3. Social practices, rituals and festive events
4. Knowledge and practices concerning nature and the universe
5. Traditional craftsmanship (p.5)

For rural and remote communities, passing cultural knowledge from one person to another- the dissemination of shared values and traditions - is primarily performed by the most senior women of the group (Singh et al., 2013; van der Hoeven et al., 2013; Anasi et al., 2013; Montanari, 2006, Goncalves, 2021). Traditionally, cultural heritage is passed orally or through demonstration; in remote areas, this includes the knowledge of the uses of the surrounding vegetation (van der Hoeven et al., 2013; Anasi et al., 2013). However, as modern economic pressures force younger generations to move and adopt different lifestyles, this knowledge can be lost as fewer younger people learn the ‘old’ ways (Anasi et al., 2013; Farfan et al., 2021). One approach to slowing the decline of cultural knowledge has been to pool knowledge from neighboring communities within a region. Singh et al. (2013) found that among Adi women of northeastern India, knowledge of the regional vegetation could be divided into different canopy levels- women from one community may know about vegetation within a certain level (ground and roots, for instance), while women in another community may know about vegetation at a different level (vine and fruits) while not knowing much about the ground and root canopy. Similarly, Cotta (2017) found that neighboring communities in northern Peru would have different knowledge of area vegetation- with one community knowing about medicinal uses of the vegetation, while the neighboring community would know more about the cosmetic uses of the local plants. It is likely that the communities in the past had more complete knowledge of the various uses of the regional vegetation, but that knowledge had not been successfully passed between generations (Singh et al., 2013; van der Hoeven et al., 2013). Restoring a more complete knowledge base either requires more interactions between these communities, or a centralized repository for information that can be added to and shared by the various groups.

Acting to preserve cultural heritage is a demonstration of maturity by society (Hung et al., 2021). In many places around the world, universities and libraries have taken on the responsibility of collecting, curating, disseminating the cultural heritage of local indigenous groups (Ognjanovic et al., 2019; Ali, 2016; Anasi et al., 2013; Forutnani et al., 2018). Academically, universities and libraries have recognized the pedagogical value of the knowledge that has been acquired and refined by the elders of a group, which allowed that group to survive across time (Ali, 2016). In order to collect the knowledge, academics and librarians need to create a relationship with the local groups that respects their values and experiences while benefiting both the group and academic pursuits (Forutnani et al., 2018). A challenge in this approach is the general lack of qualified individuals- people who have the training to be culturally respectful, while also having the technical skills needed to collect, curate, and disseminate the information (Ali, 2016; Anasi et al., 2013; Forutnani et al., 2018). When there is not a clear mandate from a governing body for the collection and curation of indigenous knowledge, funding libraries’ activities to curate the knowledge becomes more challenging (Hung et al., 2021; Anasi et al., 2013; Forutnani et al., 2018). Collection and curation activities were difficult for Anasi et al. (2013) and Forutnani et al. (2018) in Nigeria and Iran respectively due to a lack of government funding, while Ali (2016) did not note any funding challenges in Fiji- their research was supported by an academic program

within a university in Fiji, which may demonstrate a greater commitment for the preservation of indigenous knowledge. Similarly, cultural preservation efforts in Taiwan are mandated (and funded) by the Taiwanese government, which has facilitated collection efforts across many areas of Taiwanese culture (Hung et al., 2021; Ba et al., 2018). For rural groups, the creation of a library may be met with some resistance as it is a clear break from their traditions (Forutnani et al., 2018). However, once the groups understand that the library can be an extension of their cultural landscape, and will work to preserve their values and traditions, indigenous groups are more willing to embrace the change (Forutnani et al., 2018; Pereira et al., 2019; Montanari, 2006).

Cultural Landscape: Beyond Tools and Objects

Cultural landscape, as a distinct aspect of tangible cultural heritage is a relatively recent idea (Wang, 2020). It has become to be more than the physical representation of a group's values and traditions- in the form of objects, and now includes the land or environment in which people live (Wang, 2020; Jones, 1991; Folke et al., 2016). Cultural landscape recognizes that people are shaped by their environment and they will create tools to help them shape the environment to suit their needs (Wang, 2020; Montanari, 2006). In order to survive, many groups have adapted and developed sustainable systems that allow them to harvest foods and medicine in rhythm with the surrounding environment's natural cycle of growth and regeneration (Goncalves et al., 2021; Ba et al., 2018; Susilawati et al., 2020). This connection to the land provides people with a sense of place and helps them create a cultural identity (Blanchet et al., 2021; Ba et al., 2018; Susilawati et al., 2020). Because of colonization and industrialization, much of the land that indigenous groups previously used for local agriculture was converted to an exportable cash crop (Farfan et al., 2021; van der Hoeven et al., 2013; Blanchet et al., 2021). Reclaiming the land for heirloom crops requires that the people be able to utilize the traditional techniques that represent a cumulative knowledge, which has adapted with the ability to cope with a changing environment (Ba et al., 2018). This does not mean that people need to forego the technological advances that have made farming easier; but rather that those advances be interwoven into the knowledge that has developed over millennia (Susilawati et al., 2020). What is grown- and subsequently eaten has a direct impact on a person's self-perception. Farfan et al. (2021) noted, in a study of the Nasa people in Columbia, that they were hesitant to send their children to community (non-Nasa) schools because they would eat non-native foods such as rice and would subsequently reject traditional Nasa foods in the home, which to the Nasa, represented an erosion of cultural identity. In order to prevent this erosion, groups need to focus their efforts on preserving their cultural sites such as arable farmland.

Locations of cultural importance can serve as biocultural diversity hotspots, which can become sources of food, medicinal plants, centers of rituals where individuals address their sociocultural and psychological needs- all of which sustain the biodiversity and cultural identity of the people (Roba, 2019; Maffi & Woodley, 2012; Doffana, 2017; Dudley, Higgins-Zogib, & Mansourian, 2009; Ormsby & Bhagwat, 2010; Wild et al., 2008). While an entire community may share a responsibility for preserving a site, structure needs to exist within the community to determine cultural norms associated with those sites (Roba, 2019). Effective governance of sites related to agriculture or medicinal plants allows for people to re-establish a connection with the land and traditions and improves their overall connectedness to the community and their cultural identity (Blanchet et al., 2021; Farfan et al., 2021). With respect to agriculture, access to locally grown, sustainable fruits, vegetables, and livestock, helped reduce the feeling of food insecurity within a community (Blanchet et al., 2021). Food autonomy- not being reliant on processed food from external sources is a positive indicator of cultural connectedness (Blanchet et al., 2021; Farfan et al., 2021), which suggests that having a tangible link to the abstract values of the people helps individuals relate better to the group as a whole and adopt the established set of values and traditions. This sense of *belonging* is what colonization and industrialization have ripped from the

people's being and only through re-establishing that link can people successfully adapt modern conveniences with cultural heritage (Blanchet et al., 2021; Farfan et al., 2021; Folke et al. 2016). However, re-establishing a people's link to their cultural heritage should not be done in a vacuum. These efforts should be done with intent and simultaneously while a group's cultural heritage is being preserved- cultural heritage and cultural landscape are parts of the whole, but neither can exist without the recognition of the other.

Understanding the impact that their projects should be having through the lenses of these two frameworks can aid Cocinando as it begins to develop the internal systems and procedures that they need in order to begin measuring the impact that their projects are actually having. However, these frameworks are not isolated, there is significant overlap between preserving cultural heritage and conserving cultural landscape. If Cocinando can recognize where this overlap occurs within their projects, they should be able to strengthen both aspects within the same project.

Communities of Practice: Preserving Culture as a Whole

The intersectionality of sociological and ecological concerns arising from agricultural products transcend economic pressures and have deep historical roots within a community (Montanari, 2006; Pereira et al., 2019; Folke et al., 2016). Because of this, efforts to preserve indigenous culture should not be separated from efforts to conserve the environment (Folke et al., 2016; Ba et al., 2018). For many indigenous groups, the local landscape forms an integral part of their cultural identity (Wang, 2020; Blanchet et al., 2021; Farfan et al., 2021), including indigenous voices in efforts to conserve the environment will improve the feeling of connectedness that the people feel with the land and their community (Blanchet et al., 2021; Farfan et al., 2021). Re-emphasizing the cultivation of traditional crops, furthers this impact while improving the level of food autonomy for the people and may provide economic opportunities for 'new' produce in regional markets with medicinal or cosmetic uses (Cotta, 2017; Blanchet et al., 2021; Farfan et al., 2021). Bridging the span between local concerns and economic interests are chefs (Pereira et al., 2019). They have the knowledge of the uses for local produce and can highlight those products in their cooking as new markets are established (Pereira et al., 2019; Cotta, 2017). By promoting 'traditional' dishes and methods, chefs will be able to demonstrate the significance and influence of indigenous cultures within a region- thereby increasing peoples connectiveness to that culture (Pereira et al., 2019; Wong, 2020; Mungal et al., 2016). However, these efforts should not be solely focused on external interests- demonstrating the value of a particular culture to others. Chefs also have a responsibility to the people within the cultural community to help preserve- and where possible- re-discover the knowledge that had been lost.

Education is a central role of a chef- they need to continually educate themselves and those around them about the uses and availability of various products (Pereira et al., 2019). To do this, they travel between communities to meet with farmers and other chefs- through this process, they are positioned to not only learn about the produce, but also its place within a groups culture, so that when the chef presents a dish, it can be done with full knowledge of the history and traditions behind it (Pereira et al., 2019). This dialogue between the chef and others is also a place for inspiration and innovation, where new methods and techniques can be used to present a version of a dish that harkens back to the traditions of a culture but is completely unfamiliar at the same time (Pereira et al., 2019; Montanari, 2006; Mungal et al., 2016). Travelling between communities and conversing with locals about their processes and traditions is a start to the preservation process that links both the values and traditions of a people with their relationship to the surrounding environment (Pereira et al., 2019; Mungal et al., 2016; Folke et al., 2016). Cultivating and curating the cultural knowledge from different groups within an area will help the chef fill in informational gaps that may exist in any one community (Singh et al., 2013; van der Hoeven, 2013; Cotta, 2017). Creating a central repository of information and

traditions presents challenges- especially in remote areas where access may be an issue (Hung et al., 2021; Anasi et al., 2013; Forutnani et al., 2018; Ali, 2016). However, the benefits that the groups receive- greater cultural connectedness to their people and environment is a challenge that should be addressed, provided that the groups themselves have a voice in regards to how their cultural heritage and cultural landscapes are collected, preserved, disseminated (Blanchet et al., 2021; Farfan et al., 2021; Folke et al. 2016; Roba, 2019; Susilawati et al., 2020; Ali, 2016; Anasi et al., 2013; Forutnani et al., 2018).

Methods and Project Questions

This project qualitatively assessed the methods that Cocinando & Conservando (Cocinando) uses to both preserve the local food culture of indigenous groups in the Madre de Dios region of Peru, and conserve the regional environment. The assessment was conducted in three phases: a thematic assessment of the projects that Cocinando has undertaken in the area, observation of workshops held in communities, and analysis of transcripts from in-person interviews with local people who have worked on the projects with Cocinando, project participants, and other area residents. As a program evaluation, the following questions were asked:

1. How do the programs that Cocinando implements impact the local residents' knowledge of the benefits, use, and propagation of the regional vegetation?
 - a. How do programs implemented by Cocinando allow for it to achieve a better understanding of the benefits, use, and propagation of the regional vegetation?
 - b. How do the programs implemented by Cocinando allow for the transmission of knowledge between different communities?
2. How do the programs that Cocinando implements facilitate the preservation and dissemination of information of the benefits, use, and propagation of the regional vegetation?

Couched within the above questions, the project will seek to answer the following questions about the systems that Cocinando employs to develop and implement projects:

3. What processes does Cocinando use to determine if a project should be undertaken
 - a. How do the projects that are undertaken work to preserve the cultural heritage or cultural landscape of the project beneficiaries?
 - b. How do Cocinando's projects work to preserve cultural heritage and cultural landscape simultaneously
4. What systems does Cocinando have in place to apply lessons learned from previous projects to new projects
 - a. How does Cocinando collect, curate, and disseminate lessons they have learned to local communities
 - b. How does Cocinando attract, collect and disseminate knowledge gained from local communities
5. How does Cocinando identify projects that could be scaled?
 - a. What are the methods Cocinando uses to scale projects with integrity?
 - b. What are the methods Cocinando uses to scale projects with fidelity?
6. How does Cocinando identify economic opportunities for communities within its projects that would also respect the community's cultural heritage and cultural landscape
 - a. What processes does Cocinando use to impact local capacity to engage in economic concerns
 - b. How does Cocinando help local communities identify and adapt external practices to the benefit of a community's heritage and landscape

All questions were addressed through interviews with various stakeholders. Due to the remoteness of the region, stakeholders were identified by Cocinando, who also collected willing participants for the external interviewer. Question 1 was addressed directly through interviews of project participants. Questions 2 and 6 were addressed through interviews with Cocinando employees and thematic analysis of its previous projects. Questions 3, 4, and 5 were also addressed through a thematic analysis of their projects. Cocinando provided a list of projects that included goals, objectives, methods of implementation, outputs, outcomes, and lessons to help the interviewer understand the processes and systems that Cocinando has in place. This project's methodology was informed by Cocinando's own practices but also the definitions and practices described by the literature. The interviews were conducted by a volunteer from a local aid organization and were semi-structured in nature and used protocols designed to work within the participants' availability.

Data Collection and Analysis Report

In July 2022, interviews were conducted with four employees of Cocinando y Conservando (Cocinando) at Casa Malinowski- the jungle lodge that serves as the operations center for the organization. Additionally, two site visits were conducted at the Amahuaca village of Boca Pariamanu and the Yine² village of Santa Teresita. Two workshops were observed in each village. Three people were interviewed in Boca Pariamanu, while two interviews were conducted in Santa Teresita. Additionally, interviews were conducted with individuals from Caritas Madre de Dios and Ecodely, two organizations that have worked with Cocinando on projects. Two observations were held for the adults in each village. The second workshop in Boca Pariamanu was held by Caritas Madre de Dios and was focused on the nutritional benefits of having a balanced diet. The second workshop in Santa Teresita was for a project that Cocinando is piloting that begins to teach the children in the village about the uses and benefits of vegetation that can be easily found in the surrounding rainforest. Cocinando also provided a spreadsheet containing a list of their ongoing projects that included the goals, objectives and any outputs or outcomes that had been collected. Additional interviews had been planned with an additional external organization and indigenous group, however the interviewer contracted COVID while visiting the villages, so it was deemed prudent to reduce the number of interviews.

Interviews

All interviews were conducted in Spanish, recorded, and transcribed using the Timekettle Zero transcription service. The transcripts were then translated using two human translators and Google Translate in order to ensure accurate translation. One translator was a native Spanish speaker, while the other spoke Spanish as a second language, but was licensed to teach Spanish and had previously lived in the Madre de Dios region of Peru.

Internal Interviews

The interviews with Cocinando's employees were conducted at Casa Malinowski, the focal point of Cocinando's operations. The three executive managers were interviewed as a group, while one of the employees was interviewed with the Executive Director. The group setting was an adjustment for two reasons: out of cultural respect³ and to help the others better understand the context of the interviews.

² Pronounced 'jine

³ The interviewer observed that communities were hesitant to have unrelated men and women meet in one-on-one settings.

While the interviewer would explain the purpose of the interviews and the overall goals of the project, the Executive Director was better able to phrase the questions asked in a way that was more understandable by the other interviewees. Questions asked to all employees were created under guidance from the conceptual framework. However, during the interview with the Executive Managers, the interviewer noted a cultural barrier that was influencing how individuals responded to questions relating to project implementation. When questions were asked about how well specific projects were implemented, the managers stated that all of their projects had been successful. The interviewer noted that they were hesitant to say a project failed or was not successful because, from their perspective, they tried something and it had an outcome. As a result, the interviewer rephrased questions to ask about how or if any of their projects could have had improved results. The rephrasing encouraged the managers (and subsequently, the interviewed employee) to think about the aspirational goals for what they wanted their projects to accomplish broadly.

External Interviews

The Executive Director of Caritas, Madre de Dios and the Executive Director of Ecodely were interviewed respectively in their own offices. Each organization was interviewed because they had previously worked with Cocinando on projects and the Executive Director of Cocinando had expressed a desire to work more closely with each in the future. The questions asked focused on each organizations' goals, how they had worked with Cocinando in the past, and how working with Cocinando in the future might fit into the organization's own aspirational goals (see Appendix A for full interview protocol).

Organizational Interview Analysis

The questions asked of Cocinando employees and from Caritas and Ecodely were asked in a way to elicit discussion regarding the processes in place by the respective organization. Transcripts from the interviews were reviewed for themes that linked back to the framework:

Cultural Heritage

- Understanding oral traditions/expressions
- Maintaining social practices/festivities
- Curating knowledge and practices
- Maintaining traditional techniques and integrating modern conveniences

Cultural Landscape

- Knowledge of traditional foods
- Sustainable use and promotion of heirloom crops
- Careful management of land used for food crops

Heritage Preservation + Landscape Conservation

- Building relationships with local farmers
- Travel between communities
- Spread of information re: benefits of crops
- Preserve and promote information about crops, land used, and land management

A deductive approach was used in reviewing these interviews to determine if the framework being used was appropriate to how the participants spoke of their projects.

Table 1 shows the numerical breakdown for the number of times each theme appeared in an individual's response during the interview.

Table 1: Numeric Representation of Deductive Themes from Organizational Interviews

Framework	Cocinando	External	Organizational Total
Cultural Heritage	32	45	77
Understanding oral traditions/expressions	4	5	9
Maintaining social practices/festivities	18	17	35
Curating knowledge and practices	9	16	25
Maintaining traditional techniques and integrating modern conveniences	1	7	8
Cultural Landscape	15	25	40
Knowledge of traditional foods	2	9	11
Sustainable use and promotion of heirloom crops	4	8	12
Careful management of land used for food crops	9	8	17
Heritage Preservation + Landscape Conservation	45	39	84
Building relationships with local farmers	13	12	25
Travel between communities	8	7	15
Spread of information re: benefits of crops	8	8	16
Preserve and promote information about crops, land used, and land management	16	12	28

Themes related to Cultural Heritage and Heritage Preservation + Landscape Conservation were mentioned with higher frequency than Cultural Landscape and were relatively as prevalent between the Cocinando and external organization interviews. Cultural Landscape was mentioned more frequently with the external organizations, however one of the organizations interviewed was an agricultural collective of farmers, which could suggest a greater familiarity with discussing processes relating to the land and cultural landscape more broadly.

Because there were frequently multiple themes mentioned in a single response, a cross-tabulation of themes was conducted to determine if the framework themes could be related to each other. Table 2 shows a heat map of how themes were mentioned in tandem with other themes.

Table 2: Cross-Tab Heat Map of Deductive Themes from Organizational Interviews

	Cultural Heritage	Understanding oral traditions/expressions	Maintaining social practices/festivities	Curating knowledge and practices	Maintaining traditional techniques and integrating modern	Cultural Landscape	Knowledge of traditional foods	Sustainable use and promotion of heirloom crops	Careful management of land used for food crops	Heritage Preservation + Landscape Conservation	Building relationships with local farmers	Travel between communities	Spread of information re: benefits of crops	Preserve and promote information about crops, land used, and land management
Cultural Heritage														
Understanding oral traditions/expressions		0	9	7	1		3	3	4		7	4	5	7
Maintaining social practices/festivities		9	0	22	5		7	9	11		23	15	13	25
Curating knowledge and practices		7	22	0	4		7	6	9		18	11	11	17
Maintaining traditional techniques and integrating modern conveniences		1	5	4	0		7	4	6		4	1	3	6
Cultural Landscape														
Knowledge of traditional foods		3	7	7	7		0	7	8		5	5	7	8
Sustainable use and promotion of heirloom crops		3	9	6	4		7	0	9		5	5	8	9
Careful management of land used for food crops		4	11	9	6		8	9	0		8	6	8	12
Heritage Preservation + Landscape Conservation														
Building relationships with local farmers		7	23	18	4		5	5	8		0	15	9	17
Travel between communities		4	15	11	1		5	5	6		15	0	9	12
Spread of information re: benefits of crops		5	13	11	3		7	8	8		9	9	0	15
Preserve and promote information about crops, land used, and land management		7	25	17	6		8	9	12		17	12	15	0

Within the Cultural Heritage framework, there appears to be a strong connection between the themes of 'Maintaining Social Practices' and 'Curating Knowledge'. Responses containing these two themes frequently discussed the passing down of information from one generation to the next and also learning from others:

“I learned from my parents, grandparents, but also from other locals and indigenous communities. I like to talk to people and know about the forest. I try to seek out that information as well, not just what was passed down.” -Boraim

“We try to invite all of our neighbors and even some people from the city and have them come to see what we are doing. So, they come here, stay, look around see the types of projects we have going on.” -Roy

Within the Cultural Landscape Framework, there appears to be a degree of connectivity between the themes in the framework, however it does not appear as strong, likely because of the relative infrequency that the themes were mentioned overall. Additionally, the apparent lack of strong connection between the Cultural Heritage framework and the Cultural Landscape framework is surprising. The overall framework suggests that these two aspects interact with each other more directly, which results in beneficial outcomes within both frames (Pereira et al., 2019). The relative lack of interconnectivity between the frameworks, combined with a stronger apparent connection to the Heritage Preservation + Landscape Conservation framework may suggest that there is an ancillary effect- that by engaging in work related to cultural heritage, there are secondary influences that occur within the cultural landscape. It may also be the case that a stronger connection is not apparent because Cocinando itself does not engage as much in agricultural projects compared to cultural projects.

Within the Heritage Preservation + Landscape Conservation framework, there is an apparent connection to each of the components within the framework, but also a connection to both the Cultural Heritage and Cultural Landscape frameworks respectively. There appears to be a strong connection between ‘Maintaining Social Practices’ in the Cultural Heritage framework and ‘Building Relationships with Local Farmers’ and ‘Preserve, Promote Information about Crops, Land Use, and Management’. The emphasis within the responses with these themes centers on building relationships and continuing the practice of helping and working with neighbors as is required because of the remoteness of the area:

“So, if other people have a different type of cabin, like there's people that have different, they want different experiences. So maybe it's something we don't have here. Another person down the way might have that experience, and we can all work together. So, it becomes kind of like almost a network of independent lodges.” -Ruth

“We also invite people to help with our re-forestry efforts to give them a better idea of what we're planting and what our plans are. But the main thing is to invite them over, help them see what we're doing to hopefully give them ideas for things they could be doing too.” -Boraim

Given the apparent connection that Cultural Heritage and Cultural Landscape have respectively with Heritage Preservation + Landscape Conservation, while not having a strong connection to each other, more research should be done to determine if the Cultural Heritage and Cultural Landscape frameworks impact each other directly, or if the relationship is only a byproduct of the type of work being done. In order to investigate this relationship more directly, programs should be found that are more evenly balanced between cultural heritage and cultural landscape.

Stakeholder Interview Analysis

All interviews within Boca Pariamanu and Santa Teresita were conducted in the individual's home, with the exception of one interview in Boca Pariamanu that was conducted in the communal building⁴. All interviewees were recruited by Cocinando's Executive Director. In Boca Pariamanu, the President of the Women's Council, village elder, and a shop owner were interviewed. In Santa Teresita, the elementary teacher and Village President were interviewed. The interviewer asked questions in a way that allowed the participants to discuss their thoughts and experiences with Cocinando's projects, but also discuss their life more broadly (see Appendix A).

First, a deductive approach was used to analyze responses from the community members. Themes were identified in the same manner as they were for the organizational interviews. Table 3 shows the number of times a theme appeared in a response from a community member.

Table 3: Numeric Representation of Deductive Themes from Organizational and Community Interviews

Framework	Cocinando	External	Organizational Total	Community Total	Total
Cultural Heritage	32	45	77	79	156
Understanding oral traditions/expressions	4	5	9	13	22
Maintaining social practices/festivities	18	17	35	38	73
Curating knowledge and practices	9	16	25	21	46
Maintaining traditional techniques and integrating modern conveniences	1	7	8	7	15
Cultural Landscape	15	25	40	30	70
Knowledge of traditional foods	2	9	11	19	30
Sustainable use and promotion of heirloom crops	4	8	12	5	17
Careful management of land used for food crops	9	8	17	6	23
Heritage Preservation + Landscape Conservation	45	39	84	23	107
Building relationships with local farmers	13	12	25	5	30
Travel between communities	8	7	15	3	18
Spread of information re: benefits of crops	8	8	16	8	24
Preserve and promote information about crops, land used, and land management	16	12	28	7	35

The majority of the interviews within the respective communities focused on Cultural Heritage, and ways to preserve the heritage of the respective tribes.

"I've been able to use some of the lessons Roy has shown us previously in the cooking I do at home, and now that I've seen a new technique, I'll be able to use those as well. My daughter is also curious, so I've been able to start teaching her to cook and showing her some of the things that Roy has shown us." -A. Boca Pariamanu

"Another thing would be to have our own teachers like I've mentioned before- someone who speaks both Yine and Spanish well. Right now, we have the primary teacher here- he speaks our language, he has a house and is raising and educating kids and he understands more about this community because he is a part of this community. So, having one of our kids trained as a high school teacher would help us more and someone who knows more about medicine." -A. Santa Teresita

⁴ This interview was a mixed gender one-on-one interview

However, when the individual themes were cross-referenced with each other, it showed that while there was still a strong relationship between “Maintaining Social Practices” and “Curating Knowledge”, broader trans-framework connections were not as pronounced. Table 4 shows a heat map of how responses were paired from the community interviews. There does appear to be a stronger direct connection between Cultural Heritage and Cultural Landscape- responses show that the connection is entirely related to Cocinando’s projects, which does suggest the programs are having an impact. There did not appear to be a strong connection between either the Cultural Heritage or Cultural Landscape frameworks and Heritage Preservation + Landscape Conservation. This is surprising given the stronger connections exhibited during the interviews with Cocinando and other organizations. This can be understood, however, within the context of the communities- the Heritage Preservation + Landscape Conservation framework is predicated on building relationships and travel, which is something that is difficult for residents of the communities interviewed. When participants spoke of sharing information or promoting conservation efforts, it was largely related to sharing information between themselves.

Workshop Observations

Two workshops were observed, one each in Boca Pariamanu and Santa Teresita. In both villages, a workshop for adults offered by Cocinando was recorded and notes taken relating to the information being presented, the manner in which it was presented, and the interactions of the participants-both with Cocinando and with each other. Notes regarding specific conversations between the residents of Santa Teresita could not be taken because when speaking amongst themselves, the residents spoke in their native language- Yine, however notes relating to non-verbal communication and specific actions were taken.

The second workshop observed in Boca Pariamanu was offered by Caritas volunteers. The workshop covered the health benefits of a balanced diet- specifically including more vegetables in the diets of both children and adults. The presentation portion of the workshop was recorded with permission from Caritas. The recording was reviewed for content and the ways in which participants engaged with the material and types of questions that were asked. Given Cocinando’s desire to work more closely with Caritas in the future, notes from both Cocinando’s and Caritas’ respective workshops were compared to find areas of overlap that could be used to improve the ways in which information is presented.

The second workshop observed in Santa Teresita was a pilot project by Cocinando, which began teaching basic cooking skills to children while working in how to use the herbs, fruits and vegetables produced by the surrounding jungle. The workshop was held in the community center, but was not recorded because the participants were children. The observation focused on the content presented by Cocinando and the methods used to convey information to the children.

In neither demonstration was the recipe recorded. Roy stated in each demonstration that, as a chef, his recipes were in his head. A few of the participants in Boca Pariamanu were observed writing down the recipe. This is an area where Cocinando may be able to do more to help the communities retain the information being provided- thereby strengthening their connection to the land and re-creating a cultural identity.

Cocinando Adult Workshop Observation

Each respective workshop was held in a common area. For Boca Pariamanu, the workshop was in a community kitchen that had been built as a part of a jungle lodge that would be used to house visitors. In Santa Teresita, the workshop was held in the meeting hall with a portable stove and propane that were borrowed from the Community President to use for the demonstration.

Both workshops were started with a brief discussion of what was going to be cooked and the materials to be used during the cooking period. Initial attendance was good with roughly 30 people attending each workshop. Attendance in Boca Pariamanu was proportionally split between genders, however the attendees in Santa Teresita were primarily women- because most of the men in the village spent a lot of time away from the village working to bring money back into the community. Attendance dwindled after the lecture portion was completed. Each workshop had 10-15 participants during the cooking period- all women. Having the cooking process be completed by women is consistent with similar interventions in other parts of the world, where women are typically the primary source of knowledge and ability regarding cooking and the use of food (Pereira et al., 2019, Singh et al., 2013; van der Hoeven et al., 2013; Anasi et al., 2013; Montanari, 2006, Goncalves, 2021; Farfan et al., 2021).

The cooking portion was a time where the participants would strengthen their relationships with each other. As they were preparing various portions of the dishes to be made, they would exchange stories and laugh with one another. It was an opportunity to transfer knowledge as well. One young woman- who had been introduced as a new wife was having difficulty peeling a papaya and generally appeared to be unsure of what she should be doing. Some of the older women began helping her- showing her how to hold the knife and peel the papaya. This exchange, though minor exemplifies the opportunity that exists within the workshops as a place where community members can gather, exchange information and teach younger generations about the processes they use. In this way, the workshops represent the type of environment discussed by Lave and Wegner (1991) where older generations gradually teach younger generations and over time, admit them into their community of practice.

Cocinando Child Workshop Observation

In Santa Teresita, Roy offered a workshop for children as a pilot. The observed workshop was the first instance of a workshop aimed at children. Similar to the adult workshops, he started his prep and arranged the products to be used about an hour before the children arrived. Fourteen children attended the workshop⁵, Roy started the workshop by quickly discussing food safety and hygiene- telling all of the children to always wash their hands with clean water before beginning to cook. Throughout the demonstration, Roy utilized a call-and-response technique to keep the children engaged and teach them about the products being used. Unlike the adult workshops, attendance did not wane as they moved into the cooking demonstration. Some of the adults suggested that the children were interested because they were 'sponges' and actively wanted to learn. During the cooking process, the older children were observed helping the younger children with more difficult tasks like cutting mangoes or plantains. While the generational transfer of information did not appear to be happening among participants in the way

Image 1: Plantain Cakes with Mango Marmalade



the cooking demonstration. Some of the adults suggested that the children were interested because they were 'sponges' and actively wanted to learn. During the cooking process, the older children were observed helping the younger children with more difficult tasks like cutting mangoes or plantains. While the generational transfer of information did not appear to be happening among participants in the way

⁵ A volunteer from Caritas helped organize the children at the start of the workshop so that it would be more like a classroom- this allowed for easier counting by the observer. The classroom-like setting quickly disappeared once Roy began the demonstration

it did for the adult workshops, the children appeared genuinely excited to have made something new (plantain cakes with a mango marmalade) using only products that they had around the village. If Cocinando continues these workshops with the children, they may provide an avenue to help the children create a connection to the land around them that will persist when they are older. This connection to the land and the knowledge of the food around them will create a sense of belonging that can be leveraged in the future to help the community grow (Ali, 2016; Anasi et al., 2013; Blanchet et al., 2021; Chapin et al., 2010; Cotta, 2017; Farfan et al., 2021; Goncalves et al., 2021; Ormsby & Bhagwat, 2010; Susilawati et al., 2020).

Document Analysis of Project Summaries

Cocinando provided an excel spreadsheet containing a list of active and completed projects that included information on location, goals, objectives, costs, outcomes, and internal thoughts on possible improvements. The document provided by Cocinando did not exist until requested by the author (who also provided the frame and term definitions). Prior to its creation, Cocinando did not have any written materials related to their completed or ongoing projects. In Conversations with Cocinando, the managers could easily describe projects they had implemented and steps taken during the project. However, they had difficulty putting the projects on paper and framing them within the academic concepts of goals, objectives, methods, outcomes, what went right, lessons learned, and next steps. Much of the confusion seemed to stem from difficulty in breaking a project into smaller components. Under guidance from the author, statements about the stated goal(s) of a project moved from descriptions of what they were specifically doing such as: *“we planted trees on land that had been damaged by mining activities”* to a broader statement: *“rehabilitation of the land damaged by mining activities, and agriculture. Food security for the population.”* Similar disambiguation and clarification occurred for objectives, methods, and outcomes. Once the author felt that Cocinando had a firm grasp of how to break a project into smaller parts, Cocinando was asked to complete the spreadsheet for each of the projects that they had implemented. However, the form was never fully completed- only two projects were entered: the one filled out by the author under direction of Cocinando, and one completed by Cocinando while being observed by the author. Subsequent conversations with Cocinando indicated that there were additional projects that were not included because they did not understand how the projects were being entered in both English and Spanish- suggesting that beyond having difficulty breaking projects into smaller parts, there may also be a degree of unfamiliarity with the software programs chosen.

Findings

Analysis of the above data suggests that the projects implemented by Cocinando are having a positive impact on the residents of Boca Pariamanu and Santa Teresita respectively. However, the methods and systems currently utilized by Cocinando may not allow it to achieve its desired goals of growing its projects.

Cocinando Findings

Using the data above, the project questions can now be answered:

- Project Question 1: How do the programs that Cocinando implements impact the local residents' knowledge of the benefits, use, and propagation of the regional vegetation?
- a. How do programs implemented by Cocinando allow for it to achieve a better understanding of the benefits, use, and propagation of the regional vegetation?
 - b. How do the programs implemented by Cocinando allow for the transmission of knowledge between different communities?

Finding 1: Projects Implemented by Cocinando Are Positively Reflected in Speech Patterns of Community Members and Help to Teach Them about the Land They Live on.

The methods used by this investigation and Cocinando's current systems do not allow for a quantifiable answer to how Cocinando's projects impact local residents' knowledge because it is not known how much the people knew about the land or vegetation before the start of Cocinando's projects. However, the way the residents talk about the projects suggest that they are learning and are becoming more familiar with the land they are living on. Every resident interview spoke positively about the projects. The connection between the primary themes of Understanding Oral Traditions and Experiences, Maintaining Social Practices, Curating Knowledge, and Knowledge of Traditional Foods indicate that residents are beginning to take the lessons taught by Cocinando and apply them more broadly.

"For an example, we used to go fishing, we'd gut the fish and just cook them plain, but Roy has shown us how to add seasoning or using different techniques to make it taste better." -R. Santa Teresita

"These projects are excellent because the garden will be able to help all of the families here by providing more food. It also helps us become more familiar with the land as we learn when and where to plant near the water. I think there's an economic opportunity here too- the Brazil nuts that we have are the primary source of income for the community, so having additional types of plants being grown can help us offer different things." A. Boca Pariamanu

Statements such as the ones above indicate a broadening perspective and growing connection to the land around them. A person's connection to the land is a key component in creating a cultural identity (Pereira et al., 2019; Chapin et al., 2010; Folke et al., 2016, Blanchet et al., 2021) and the steps taken in these communities are the first in a series that can create a heritage of continuous learning regarding the dynamics of the local social-ecological systems (Pereira et al., 2019; Chapin et al., 2010; Folke et al., 2016).

Project Question 2: How do the programs that Cocinando implements facilitate the preservation and dissemination of information of the benefits, use, and propagation of the regional vegetation?

Finding 2: Because Of Limited Travel Opportunities Within Indigenous Communities, Cocinando Should Become the Vehicle for Information Transfer.

Due to the remoteness of the respective villages and infrequency of travel opportunities for participants in Cocinando's projects, it is unlikely that Cocinando's projects facilitate a transfer of information between residents of different communities. Cocinando needs to become the vehicle for an exchange of information in this situation. Utilizing Roy's expertise regarding local produce and dishes, Cocinando can use the lessons learned in one community and apply them to another. By promoting successes and demonstrating the importance of 'traditional' methods, people's connection to the land may be increased (Pereira et al., 2019; Wong, 2020; Mungal et al., 2016).

There is evidence to suggest that some participants are using lessons from Cocinando's projects in their own cooking. Engaging with them to find what helped them in their home and if they found a way to do something that made the work easier. These experiences can then be shared in another community visited by Cocinando. Additionally, Caritas was observed asking residents how many chickens they still had (as a part of one of their existing projects). In conversation with the Caritas volunteers, they were only interested in the number of chickens for reporting reasons- they did not inquire about why some families had fewer chickens (there was evidence that some chickens had died) while others had newly hatched chicks. Cocinando has an opportunity to learn about the different ways that families are caring for their livestock- and facilitate the exchange of information about what works and what does not work not only within that community but spreading it to other communities just starting to raise livestock. Helping to spread information in this way may help strengthen the bond that the people have to each other and their cultural heritage (van der Hoeven et al., 2013; Anasi et al., 2013) and the environment around them and their cultural landscape (Blanchet et al., 2021; Ba et al., 2018; Susilawati et al., 2020).

Project Question 3: What processes does Cocinando use to determine if a project should be undertaken?

- a. How do the projects that are undertaken work to preserve the cultural heritage or cultural landscape of the project beneficiaries?
- b. How do Cocinando's projects work to preserve cultural heritage and cultural landscape simultaneously?

Finding 3: Cocinando's Decision-Making Processes Are Informal

Cocinando implements projects based on an individual's desire and skillset. Cocinando's organizational structure is similar to a small-scale NIC, which utilizes information based on Cocinando's experience and the perspectives of community members. NIC's allow an organization to learn from all levels of itself; when properly constructed, they bring employees from all levels of the organization together to address a specific issue (Byrk et al., 2016; Lingenfelter, 2016). However, while Cocinando's management team is focused on the goal of protecting and preserving the rainforest and the lives of the people who live in it, they have not specified the goal clearly enough to give the organization direction in relation to their specific context. As a result, projects undertaken are not designed with an eye towards testing and improving the projects in line with Cocinando's organizational goals, but rather based on instinct of what might work.

- Project Question 4: What systems does Cocinando have in place to apply lessons learned from previous projects to new projects
- a. How does Cocinando collect, curate, and disseminate lessons they have learned to local communities
 - b. How does Cocinando attract, collect and disseminate knowledge gained from local communities

Finding 4: Cocinando Does Not Actively Learn from Projects

Because Cocinando's projects are implemented based on instinct and are not designed through methods of development, testing, and refinement, Cocinando is not able to record the information gained from the project itself. Learning may occur during the implementation of a project; however, it is likely more a product of life experience than an intentional outcome of the specific project. The context of where many projects are implemented is a confounding issue. Due to the remoteness of Casa Malinowski, and both the communities of Boca Pariamanu and Santa Teresita, recording information or measuring effectiveness is not easily done in an area that does not have consistent electricity or internet coverage, or for projects where there may be lower literacy rates due to language barriers. Challenges relating to recording data limit Cocinando's ability to actively gather information about the projects that it implements.

- Project Question 5: How does Cocinando identify projects that could be scaled?
- a. What are the methods Cocinando uses to scale projects with integrity?
 - b. What are the methods Cocinando uses to scale projects with fidelity?

Finding 5: Cocinando Does Not Have a Method for Identifying Scalable Projects

The instinct-based implementation system for Cocinando's projects combined with an inability to directly learn from projects mean that they cannot successfully identify projects that could be scaled. Additionally, because Cocinando does not identify desired outcomes prior to project implementation, they cannot know if a project has been successful- beyond the idea that a project was successful because there were some sort of outcomes and they tried to address an issue.

- Project Question 6: How does Cocinando identify economic opportunities for communities within its projects that would also respect the community's cultural heritage and cultural landscape
- a. What processes does Cocinando use to impact local capacity to engage in economic concerns
 - b. How does Cocinando help local communities identify and adapt external practices to the benefit of a community's heritage and landscape

Finding 6: Cocinando Allows Communities to Approach Them Before Discussing Economic Opportunities

While Cocinando actively approaches communities to help them learn about using the produce that grows around them, Cocinando does not initiate conversations about potential economic benefits of certain crops or projects. Instead, Cocinando allows communities to approach them with ideas about what they would like to achieve and preferably with some ideas for specific projects that Cocinando can help them with. By using this approach, Cocinando not only ensures that the community has at least given the idea some thought and is willing to engage in the work, but it also gives the people in the community a voice, which can improve their feeling of connectedness to the community and the land

they are on (Blanchet et al., 2021; Farfan et al., 2021). Once a community has indicated a direction that they would like to go in, Cocinando is able to use its expertise of the land and region to help the community achieve its goals. For the communities, Cocinando bridges the gap between local concerns and economic interests, which can provide not only greater connection to the land and cultural heritage, but also potentially introduce new opportunities that can improve food autonomy or improve the economic outlook for a community (Blanchet et al., 2021; Farfan et al., 2021; Cotta, 2017; Pereira et al., 2019).

Summary of Cocinando Findings

Findings three through five indicate that while Cocinando is organized like a Networked Improvement Community (NIC), its ad hoc or informal way of making project-related decisions do not allow it to take advantage of the full benefits related to NIC's. Cocinando fails to fully execute all four key components of a NIC (Lingenfelter, 2016):

- While Cocinando's management team has a common aim of preserving the rainforest and the way of life for the people that live within it, the aim is not well-specified and does not delineate organizational values and goals- there is a degree of variability between the people that may create individual agendas that are not in line with organizational objectives.
- There is no question that Cocinando understands the problems it is trying to address and the system that produced the problems. However, it is not apparent that Cocinando has actualized a unified working theory for addressing the problems. Again, this may create individual agendas that inhibit Cocinando's ability to achieve its goals.
- Cocinando does not utilize an implementation approach that seeks to continuously develop, test, and refine projects or their measurements. Their projects are discrete events and are not designed to inform future implementations.
- Cocinando's projects are able to be integrated into the respective communities easily, however, the remoteness of where projects are implemented prevents natural dissemination beyond the immediate community. Additionally, Cocinando's lack of tracking tools prevents them from gathering information and spreading it to other communities.

Emergent Findings

Finding 7: Historical Cultural Trauma Force Communities to Rebuild Their Cultural Landscape

During interviews within both of the respective communities, residents each mentioned that they had been forced off of their ancestral land for different reasons. In Boca Pariamanu, three separate groups of Amahuaca were forced off their land by illegal mining concerns in the early 1990's. During the ensuing time, the groups have intermingled, however, there may be deep-seeded biases occurring between the groups that were pushed off their land and groups that were already living in the region.

"But we are not seen as leaders here. The Council of Indigenous Community Association, they have offices in Puerto Maldonado- they came here and said that they did not expect us to ever have leadership positions because we are not from one of the local tribes, we come from a different place so we don't belong here. I don't understand this- I come from another place, but I am still a member of the Amahuaca Tribe. The person they recognize as a leader, he grew up here, so he's one of them." -Ja. Boca Pariamanu

Within Boca Pariamanu, there was minimal evidence that the residents felt any connection to the Amahuaca identity. Spanish was the primary language in the community and the only indicator that the community was an Amahuaca village was a banner stating: we are the indigenous community “Boca Pariamanu” an Amahuacan village and we are not for sale⁶, referencing the community’s unwillingness to engage in mining activities. In Santa Teresita, the community had been forced off their ancestral land by an uncontacted tribe sometime around 2010. One of the biggest differences between the communities was the numerous and clear cultural identifiers within Santa Teresita that identified the residents as Yine. The Yine language was the primary language spoken, with children only learning Spanish in the primary school. The school itself, was taught half in Yine and half in Spanish- all material in the school was printed in both Yine and Spanish. Community members spoke about visiting other Yine communities in Brazil and Bolivia.

Image 2: Cultural Identity in Boca Pariamanu



“And I mean, we were like immigrants here. We’re from Peru, but we’re from another area and we have family in other places in Peru, but also Brazil and Bolivia and we all speak the same language so sometimes we’ll travel to the other villages.” -A. Santa Teresita

Central to the Cultural Landscape framework is people’s connection to the land that has been formed over generations (Blanchet et al., 2021; Ba et al., 2018; Susilawati et al., 2020). The tools and systems developed by a group over long periods of time may not be useful if that group is forced to move to a different area (Wang, 2020; Montanari, 2006; Goncalves et al., 2021; Ba et al., 2018; Susilawati et al., 2020). While there was evidence that the residents of Boca Pariamanu were adapting to their new surroundings, they were just beginning to learn about how the land could be used and what they needed to draw from it to provide a sustainable life for the community. For the residents of Santa Teresita, that adaptation had not fully begun yet. While the families within the community had started planting crops, they had not yet built the connection with the surrounding rainforest to be able to draw what they needed from it. The information that both communities need is the type of information that is developed over years and generations.

Finding 8: Ongoing Cultural Erasure Prevents the Passing of Cultural Heritage

Both communities are also facing a population loss due to younger generations having to leave the community for their secondary education. Cultural heritage is passed from older to younger generations, but when the younger generations leave the area and adopt a different lifestyle, then that cultural heritage is lost (Singh et al., 2013; van der Hoeven et al., 2013; Anasi et al., 2013; Montanari, 2006, Goncalves, 2021; Farfan et al., 2021). Forcing children and their families to choose between remaining in the community- the group that shares their values and traditions, or leaving the community in pursuit of education is a form of cultural erasure within the context of these communities. Culture is the intersection of tradition and innovation (Montanari, 2006). Once young people leave the

⁶ Somos Comunidad Nativa “Boca Pariamanu” del pueblo Amahuaca y nosotros somos not for sale

community, they do not return- any new ideas or techniques that the children may learn are not returned to the community- which forces the communities to try and maintain their traditions with fewer people to pass them on to. In Boca Pariamanu and Santa Teresita, this erasure manifested itself differently.

For Boca Pariamanu, the lack of both a unified identity and younger generation, suggests that the community may have unconsciously given up on the idea of retaining the younger generation and passing their heritage on. Residents spoke with great sadness about the lack of children in the community. In Santa Teresita, having a clear identity as Yine and speaking that language helps form a bond between the members of the community that signify a shared background and set of values and traditions. The community takes pride in having one of their own community members be the primary school teacher in the village.

“Right now, we have the primary teacher here- he speaks our language, he has a house and is raising and educating kids and he understands more about this community because he is a part of this community.” -A. Santa Teresita

This has helped attract additional Yine to the community which further binds the community together. The age of both the settlement and its residents too may help, as the community has grown, so too have the number of children in the community- this has prompted the community to begin the process of having a secondary school built. If successful, and they are able to have one of their own community members be appointed as the teacher there, it will be one more way for the community to pass on their heritage to the next generation.

Recommendations

In order for Cocinando to achieve its aspirational goals of growth for itself as an organization and its individual projects, it should undertake a few structural changes aimed at clarifying and unifying the missions of the individual units within Cocinando and begin documenting not only its processes but also data related to its projects. The documentation will help provide a clearer description of what Cocinando does when it pursues grants, while the cycle established from Recommendations 1 and 2 will empower Cocinando to develop a mindset that seeks to improve its methods in a way that is sustainable for their context. Additionally, while evidence indicates that what Cocinando is doing has a positive impact on the communities it works with, slight adjustments to how the projects are approached could increase the degree of impact that the projects have and provide the communities with the additional hope and support they need to rebuild their cultural heritage and cultural landscape.

Cocinando Structural Recommendations

Recommendation 1: Begin Thinking as An Organization Instead of as a Family [R1]

Cocinando's current decision structure is more indicative of a family interaction than an organization. The structure that relies on the individual strengths of a person and defers to the expertise of the individual can help family members feel heard and supported, but may hinder organizational growth due to the respective agendas or desires of the individual people not aligning with the needs of the larger organization. In order to shift from a family mindset to one of organizational growth, Cocinando should clearly establish its mission- what are its goals, how will it achieve them, how will it know if it has achieved them? This shift in thinking for the individuals does not need to completely change the way they operate; as a networked improvement community, Cocinando can still rely on the individual experience and expertise of the management team or other members, but their expertise should feed into the larger goals that Cocinando has established and agreed upon. Achieving this shift in thinking may require thinking about Cocinando's individual aspects and adjusting them to fit in the penumbra of Cocinando's operations.

Recommendation 1 Step 1: Create Separate Specific Missions for Operations Related to Land Conservation, Cultural Preservation, and Hospitality [R1S1]

Creating individual missions for the different area of operations allows for those missions to be more readily merged to form the broader mission for Cocinando as a whole. When establishing the missions, additional members should be invited to provide input. Allowing the older children, who are already starting to lead excursions into the rainforest, to have a say in the structure of the organization will help them create a deeper connection to the organization and may increase their desire to help run Cocinando once they have finished their education.

Recommendation 1 Step 2: Develop Shared Working Theories for Issues Being Addressed [R1S2]

While it is clear that the managers within Cocinando have a deep understanding of the problems being addressed and the systems that produce them, Cocinando does not have any unified working theories regarding how the issues should be approached. Creating theories about how an issue should be approached allows Cocinando to ensure that its interventions not only align with Cocinando's overall mission, but also allows them to see how their respective projects overlap and can be implemented in support of each other.

Recommendation 2: Develop A System That Supports Continual Improvement [R2]

Building off of Cocinando’s mission and the developed working theories from R1S2, Cocinando should begin approaching the implementation of its projects more systematically. Recording data that can be compared against not only the working theory, but also the expected outcomes for a given project will help Cocinando determine if its projects are having the desired impact. Establishing a documented, systematic approach will also be valuable when presenting project ideas to external funders. Involving children in the documentation process will ease the collection burden on the organization and allow them to gain a better understanding of why a particular approach was taken for a given situation, this approach also helps pass along traditional knowledge from one generation to the next and creates a record that future generations can look back on.

Recommendation 2 Step 1: Begin Recording Information

Information is key for any organization. For Cocinando, documenting its mission, methods and outcomes is a way to demonstrate its organizational values and traditions not only to its own employees, but also to external funders. Cocinando’s mission, values and traditions can be displayed publicly and may help Cocinando disseminate the message about their work. For projects, recording data does not need to be complex at the start. For any given project, the following information should be recorded:

Table 4: Sample of Basic Information to Record

Information to Record	Example
Project Name	Reclaiming Land in Santa Teresita
Project Date and Location	July 2022, Santa Teresita
Working Theory	Planting [specific tree] in an area that was previously burned away will help restore the area and encourage additional plant growth
Expected Outcomes	Trees will take root and an underbrush will grow within 2 years, in 3-5 years the [planted tree] will begin bearing fruit, which can be planted for additional growth, used for medicine, or sold at market.
Actions Taken	Planted 30 [specific tree] in [X area] in [month/year].
Actual Outcomes	Significant underbrush growth, 25 of 30 trees took root and are bearing fruit, ¼ of harvested fruit replanted for future growth, remainder divided among families for personal use or sale.
Lessons Learned	Jungle regrowth is starting to occur [note month/year]. The 5 trees that did not take root were planted too close to river and were washed away. Trees should be planted on higher ground to ensure they take root. Re-check trees in [month/year]

It is important to mention that in Table 4; Expected Outcomes need to be from Cocinando’s perspective- what the organization hopes will happen by implementing this project. The expected outcome should be in line not only with the developed working theory, but also with Cocinando’s mission. Actual Outcomes represent what actually happened and should reflect the reality of the new situation. Not achieving all (or any) of the Expected Outcomes is fine as long as the Lessons Learned can be used to refine aspects of the project to produce better results the next time it is implemented.

If, within the context, the above information is too much at the start, then more simplified information can be recorded until Cocinando is more comfortable with recording information. At the

bare minimum, Cocinando should start recording participant numbers- the number of plants planted or attendees at a workshop. As Cocinando becomes more comfortable with recording information, additional information can be recorded. The intent with the recording of information is to document the process used and demonstrate that a systematic approach is taken. Recognizing Cocinando's current context, recording the data can initially be done in a way that is easiest within their current capacity- pencil and paper or via phone. However, maintaining data electronically or online will be preferred as it will be easiest to review and analyze it.

Recommendation 2 Step 2: Compare Actual Outcomes and Lessons Learned to Theory and Expected Outcomes[R2S2]

As mentioned, comparing the actual results to the expected outcomes will help Cocinando begin tracking the impact that their projects are having. By applying the lessons learned to the appropriate place within the implementation, Cocinando will create an iterative cycle that will help to measure the projects and find ways to improve them. By better understanding what works within the projects, Cocinando will be better able to identify how projects can be adapted to specific contexts of different communities while remaining consistent with Cocinando's established mission. Additionally, if Cocinando understands how projects are effective, it will be easier to think about how to grow a project's scale (making it larger within a community) or scope (implementing the project in many communities) and develop working theories that allow Cocinando to grow the project as desired. As Cocinando becomes more comfortable recording and tracking data and more advanced information is tracked, they can lean on the knowledge of others they work with (partner organizations, children who may have been trained in business analytics, etc.) to help them understand how to interpret the information and data they are seeing, more advanced data analysis will help them understand the impact their projects are having and may be able to suggest ways they can further improve their project design and implementation processes.

Recommendation 3: Actively Work to Create Hope Through Rebuilding Cultural Heritage [R3]

While the initial interview data suggests that Cocinando's projects are having a positive impact in the respective communities, adopting R1 and R2 will allow Cocinando the time to develop a tracking system that will eventually allow them to more accurately measure the impact of their projects. Without more data, there are not any recommendations for adjusting Cocinando's projects to be more effective. However, the frequency that the residents of Boca Pariamanu and Santa Teresita spoke about the loss of their culture and traditions may offer an opportunity for Cocinando to help the respective communities rebuild their cultural heritage and reconnect with their cultural landscape. If Cocinando can create opportunities for participants to engage more with the materials being taught, it should help them build better connections with their land and each other. The improved connections will help re-establish the individual's cultural identity (Farfan et al., 2021; Roba, 2019; Maffi & Woodley, 2012; Doffana, 2017; Dudley, Higgins-Zogib, & Mansourian, 2009; Ormsby & Bhagwat, 2010; Wild et al., 2008), which should be further reinforced as other members also reconnect with their own (shared) cultural identity.

Recommendation 3a: Invite More Engagement in Active Learning Environments [R3a]

The observed workshops held by Cocinando are lecture based. Participants have the opportunity to engage with each other during the process of food preparation and cooking, but were not offered the opportunity to discuss what they had learned. During the workshops, Cocinando can invite participants to share what they've learned- whether it is a technique that they are using on a different dish, or a way to prepare a dish that reduces some of the labor involved. This type of participation can be encouraged through the use of call-back and call-forward prompts at the beginning

and end of each workshop. At the beginning of the workshop, Cocinando can ask the participants what they remember from the previous workshop or if anyone had tried to make the dish at home and what the results were. The call-back is a way to reinforce the lessons being taught and to initiate a discussion about what had been learned. Similarly, at the end of the workshop, Cocinando can challenge participants to try and make the dish at home- not only to practice the techniques, but also play with the flavors. How can the dish be adjusted to change the flavor profile? What flavors work well together, what flavors do not go together? Challenging the participants in this way offers them a chance to internalize the lesson and make it their own. By thinking about the lessons and recreating the dish, Cocinando is offering the participants an opportunity to engage and interact with their cultural heritage (thinking about how the dish fits into their daily life, when it would be made, why it would be made are all aspects of cultural heritage) and cultural landscape (the process of making the dish, techniques used, presentation of the dish are aspects of the cultural landscape). As participants become more comfortable discussing their processes and they share what they have learned with others, the shared culture may emerge that allows the participants to identify as a member of the group while the dish represents something that belongs to that group's community. Having physical representations of a group's culture will increase an individual's level of cultural connectedness (Blanchet et al., 2021).

Recommendation 3b: Curate Community Recipes [R3b]

During workshops, a few participants were observed recording the recipes provided. Cocinando should help the communities curate their recipes through the creation of community cookbooks. These cookbooks offer an opportunity to record and preserve the group's cultural heritage, which can then be shared with future generations and others who are interested in learning about their culture. The curated recipes should include not only the recipes that Cocinando has presented using resources available around the community, but from the participants themselves- the dishes that they make and identify with. Beyond the recipes, the cookbooks can include stories, histories, and traditions that are important to the community's preparation of food. There may be some initial resistance to the curating of the recipes as it is a break from cultural traditions (Forutanani et al. 2018), however, as participants see that it is an effort to preserve their values, traditions, and way of life, they should be more willing to share their stories (Forutanani et al., 2018; Pereira et al., 2019; Montanari, 2006).

Recommendation 3c: Engage More Children in Projects [R3c]

One of the biggest challenges both Boca Pariamanu and Santa Teresita face regarding the future of their respective communities is the ongoing probability that the younger generations will leave and not come back. Expanding the pilot project for children into other communities and introducing them to the other projects occurring in their respective communities will help the children to create a sense of place and belonging within the community so that when they do leave to further their education, they have a greater desire to return because their identity has been rooted in a community. Giving the children a voice with respect to project decisions will increase their overall cultural connectedness (Blanchet et al., 2021; Farfan et al., 2021; Folke et al., 2016; Roba, 2019; Susilawati et al., 2020; Ali, 2016; Anasi et al., 2013; Forutanani et al., 2018). The improved cultural connectedness may provide additional benefits as the children will return to the community having gained new skills, which can be used to expand the projects that are already in place, or they may be able to identify new economic opportunities for the community that will help it grow and prosper.

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Appendices

- A. Interview Protocol
- B. Workshop Observation Summaries

Appendix A: Interview Protocol

Interview Opening

The beginning of the interview opens with a brief introduction of myself and an overview of the project. Participants will be informed of what they can expect during the interview:

- The interview will last approximately an hour
- The participant's participation is voluntary
- There will be no negative consequences for opting out
- The interview will be recorded, but the participant's identity will be kept confidential.

External Interview Questions

1. Thinking back to before your involvement with Cocinando, what were the typical ways that information about using plants/landscape were passed from one person to another?
 - a. Who typically initiates the transfer of information?
 - b. How did the exchange of information influence your connection to the community?
 - c. In your experience, how have you seen your community's traditions change over time?
 - i. What were the influences that prompted those changes?

2. You have previously worked with Cocinando. Can you tell me what you remember of the project?
 - a. How did you become involved with the project?
 - b. What was the intent?
 - c. What were some of the activities that occurred?
 - d. What were some of the outcomes?
 - e. What were your main takeaways following the conclusion of the project?

3. How did this project change the way you feel about your community?
 - a. How did participating in this project change the way you interact with others in your community or utilize community resources?
 - b. How did participating in this project change the way you *feel* about others in your community or community resources?
 - c. Since participating in the project, how have you shared the information with others in your community?
 - d. Since participating in the project, how have you stayed in communication with others who were in the project with you?

4. Looking forward, how do you see the ways in which you or others in your community will share information- not only with younger generations within your community, but also with neighboring communities?
 - a. What benefits do you see this having in your community?
 - b. What are some of the challenges you see in trying to share information?
 - c. What are some things you think can be done to facilitate the spread of information?

Internal Interview Questions

1. What processes does Cocinando use to determine if a project should be undertaken?
 - a. How do the projects that are undertaken work to preserve the cultural heritage or cultural landscape of the project beneficiaries?
 - b. How do Cocinando's projects work to preserve cultural heritage and cultural landscape simultaneously?
 - c. How does Cocinando determine if a project has been successful/reached its desired results?

2. What systems does Cocinando have in place to apply lessons learned from previous projects to new projects?
 - a. How does Cocinando collect, curate, and disseminate lessons they have learned to local communities?
 - b. How does Cocinando attract, collect and disseminate knowledge gained from local communities?

3. How does Cocinando identify projects that can be expanded?
 - a. How does Cocinando ensure that when projects are expanded, they retain the intent of the original project?
 - b. How does Cocinando ensure that when projects are expanded, they are utilizing the same methods of the original project?

4. How does Cocinando identify economic opportunities for communities within its projects that would also respect the community's cultural heritage and cultural landscape?
 - a. What processes does Cocinando use to impact local capacity to engage in economic concerns?
 - b. How does Cocinando help local communities identify and adapt external practices to the benefit of a community's heritage and landscape?

Appendix B: Workshop Observation Summaries

Cocinando Adult Workshop Observation

Each respective workshop was held in a common area. For Boca Pariamanu, the workshop was in a community kitchen that had been built as a part of a jungle lodge that would be used to house visitors. In Santa Teresita, the workshop was held in the meeting hall, a portable stove and propane were borrowed from the Community President to use for the demonstration.

At a pre-arranged time, Roy met with willing community members in both Boca Pariamanu and Santa Teresita. About an hour prior to the meeting, Roy began his prep- setting out the produce that would be used during workshop. Some staples such as eggs, flour, and sugar, he had brought with him- things that were not available within either of the respective communities. For the remainder of the produce though, he asked community members to bring things that they were growing in their homes or had been harvested from the surrounding jungle. A sample of items that were brought include cucumber, jungle spinach, cilantro, aji dulce (sweet pepper), onion, mango, papaya, orange, citronella, lemon grass, brazil nuts, coconut, yuca, potatoes (numerous types). Roy arranged the produce in a way to be visibly pleasing and also easy to point out to discuss how the item would be used/prepared.

As the participants arrived, Roy began thanking everyone individually who had contributed produce to the workshop. There was no place where participants would sign in/indicate they had attended. Because of the communal nature of the workshop space and people moving in and out, it was difficult to get an accurate headcount for the observer, however there were approximately 10-15 participants at each respective workshop. All but one of the participants in Boca Pariamanu were women, while all of the participants in Santa Teresita were women (two men did come towards the end of the workshop and helped prepare bamboo twine, but did not attend/participate in the rest of the workshop). The unbalanced gender distribution is not entirely surprising. Each community adhered to very clear gender roles, where the woman was expected to maintain the household and raise the children, while the man was responsible for matters outside of the home. Additionally, in Santa Teresita, there were not many men in the village at all. From conversations with residents, the majority of men were working fields in other communities to earn money and would be absent from the community for months at a time. The one man who attended in Boca Pariamanu was the village elder and was visibly uncertain about tasks that needed to be done. It is possible that his attendance was because there were outside observers in the community.

After greeting and thanking each participant, Roy gave an overview of what they would be doing during the workshop and discussed each of the ingredients to be used. This portion of the workshop lasted approximately twenty minutes and was primarily lecture-based. As he discussed each of the donated products, he asked participants about them, how they tasted, their texture, how they could be used. For the items that came from family gardens, participants could broadly discuss the flavor and some of the ways they used that item. For the items harvested from the jungle, there were fewer responses and it appeared as if the participants were unfamiliar with the item. In either case, Roy would add additional information about how to use the product. For instance, in Boca Pariamanu, some squash had been contributed, participants indicated that they typically boiled it or put it in soups and that it had a slightly bitter taste. Roy noted that if they grilled it, the squash would become sweeter and creamier.

After Roy had explained the produce and discussed the dishes that would be made during the workshop, he gave everyone tasks for the various stages of preparation. During this phase, Roy would start by listing off the ingredients needed including the amount and how they were to be prepared. He stated that as a chef, his recipes were in his head, but did suggest that participants write down the what

he was saying. In Boca Pariamanu, four of the participants were seen writing down the recipes. In Santa Teresita, none of the participants were observed writing down the recipe. The observer was not sure if that was because of a language barrier, not knowing how to write, or something else. After he finished describing the recipe, Roy mostly observed and talked with the individual participants. When someone was unsure of how to do something, he would show them and then allow them to complete the task. Roy did not discuss technique or cooking theory during this time- preferring instead, to allow the participants to work together and get used to working together as a group. In Boca Pariamanu, the conversations during the prep and cooking portion were mostly conversational- idle conversations and joking that people do amongst themselves when in familiar company. The observer did note an instance of generational information transfer between the participants. One of the participants of the workshop was a young woman, who had been introduced as a newlywed wife. This young woman was visibly unsure of herself in the kitchen setting and did not know how to go about the tasks that were given to her. Different women who were working near her, would stop to show her how to do a task and talk her through the process as she attempted to chop or peel some of the produce. The observer suspected that similar exchanges were happening during the demonstration in Santa Teresita, however, because side conversations were in Yine, the observer was unable to understand on the conversations.

Following the prep and cooking phases, Roy brought the participants back together, showed them how to present the dishes in an appealing manner and then discussed how the prepared dishes could be used. In Boca Pariamanu, his emphasis was on how the products used were primarily from the community and surrounding jungle, but could be prepared in a way that would appeal to a foreigner's palate. In Santa Teresita, the emphasis was the nutritional value of what was made- how each portion of the meal contributed to a balanced diet and could provide long-term health benefits if practiced regularly. Roy did not go into specifics regarding the nutrients, but kept the conversation more general discussing how the fruits and vegetables not only brought more flavors to the dish, but also provided vitamins and nutrients that a person needed to be healthy.

Once all of the food was prepared, the entire community came together for a meal. In both communities 30-40 people were served the communal hall. The women who had prepared the meal, served the men, guests, and women with children before eating. In Boca Pariamanu, the meal was also held in the communal hall, observed conversations with the men centered around hunting and crops, while the conversations with the women focused on child care and the needs of the family. In Santa Teresita, there was less of a communal feeling to the meal- people came to get the prepared food, but many did not stay as there was not many seats and tables where the community could eat together in the same way as the residents of Boca Pariamanu could.

Overall, the observer noticed how Roy would alter what and how he talked about food based on the capacity of the community. For Boca Pariamanu, the community was more established and had made a decision to try and attract visitors to the community. As a result, this workshop was the first workshop that was targeted towards presenting the foods the community was familiar with in a way that would appeal to a foreigner's palate. In private conversations, Roy mentioned that previous workshops had been focused on using available produce to cook in the homes. In contrast, Santa Teresita was less established and had not yet made the decision to actively invite visitors to the community. As a result, the workshop in Santa Teresita was entirely focused on using produce in the homes and how to feed the family off of available crops. Roy stated in conversations that the observed workshop was only the third or fourth he had done in the community, so the participants were just starting to learn about what was possible. The observer did notice a possible oversight with the observed workshop in Boca Pariamanu; one of the dishes prepared were citrus crepes (called pankekes) topped with an orange syrup. During interviews with the residents of Boca Pariamanu, there was a lot of discussion about how the community produced their own chocolate from cacao grown on their lands. Given that the workshop was centered on appealing to a foreign palate using local produce, the

observer felt that the flavor pairing of orange and chocolate could have been discussed as it would have not only helped the participants see how local goods could be used, but also highlight and promote the things they were already doing.

Cocinando Child Workshop Observation

In Santa Teresita, Roy offered a workshop for children as a pilot. The observed workshop was the first instance of a workshop aimed at children. Similar to the adult workshops, he started his prep and arranged the products to be used about an hour before the children arrived. Fourteen children attended the workshop⁷, Roy started the workshop by quickly discussing food safety and hygiene- telling all of the children to always wash their hands with clean water before beginning to cook. He then had them all wash their hands with soap and water. With the assembled produce, he asked the children if they could identify each item. The children appeared engaged, with many shouting the answers. Roy would re-affirm the answer and then discuss some basic properties of the produce- how it tasted, its texture, how to use it. This portion of the workshop was considerably shorter than it was for the adults- lasting roughly ten minutes. When he started to explain the dish, they were going to make (plantain cakes with mango marmalade), he divided tasks based on age- older children were allowed to cut the plantains, while younger children helped with mixing dry ingredients. Because the children all had tasks, they remained engaged and there was not a lot of attrition during the workshop. At the halfway point, while the marmalade was reducing and the bread dough resting, Roy told the children to go get something to drink. Every single child ran to the coconut trees nearby to grab a coconut, with the older children using machetes to cut them open so everyone could have their drink. One of the small children gave a whole coconut to an observer- who was not confident enough to use a machete to open it, and was too embarrassed to ask a child to open it for them. The exchange with coconuts here is potentially significant because in interviews with residents, they noted that coconuts are very abundant around the community, and they use them as their source of water, but that they don't know what else to do with them, or how to use them in their cooking. This could be an area where Roy could expand what he teaches to help the residents reduce their food waste.

Following the break, Roy re-emphasized hygiene when cooking and had everyone wash their hands again. Then each child, took their dough and formed them into small patties that Roy would pan fry. During the cooking of the bread, Roy discussed the importance of safety around fire- especially cooking fire, and he had to keep children from crowding too close to the frying pan as they wanted to see their breads being cooked. During this time, he also had the children recite the ingredients that went into the bread and marmalade respectively. Child engagement remained high as their curiosity also made them excited to try and touch the fried bread as it came from the pan. Once all of the breads were finished, Roy topped each one with a little marmalade and had the children say one more time what the ingredients were. The children were then able to take their bread from the table.

Similar to the adult workshop in Santa Teresita, there was no recording of the recipe that was used. Unlike the adult workshop however, while the plantain bread and marmalade were made with local ingredients, they are not something that had been made in the community before and were clearly not a part of the community's traditional diet. After eating their bread, the children exploded with energy and ran off to play- though a number of them came back to try and scrape some leftover marmalade off the plantain leaves that the breads had been served on.

⁷ A volunteer from Caritas helped organize the children at the start of the workshop so that it would be more like a classroom- this allowed for easier counting by the observer. The classroom-like setting quickly disappeared once Roy began the demonstration

Caritas Workshop

In Boca Pariamanu, a nutritional health workshop was offered by the aid organization Caritas. A similar workshop was offered in Santa Teresita, but was not observed because it was at the same time as the children's workshop offered by Cocinando. Conversations with the Caritas presenters indicated that the content of the Santa Teresita presentation was the same as the one observed in Boca Pariamanu. Ten people attended the workshop in Boca Pariamanu- seven women and three men. The workshop began by having everyone sign in for Caritas' records. The presentation was theoretical in nature, with the presenter discussing how certain vitamins and minerals benefited adults and children in different ways and why it was important for both adults and children to have a balanced diet that included them. The presentation did not tie into life within the community at all and the observer felt that the presentation had been designed for a broader distribution. Caritas volunteers later said that the curriculum for their presentations had been developed by the Ministry of Health with some input from the United Nations Development Program. At the end of the 90-minute presentation, the participants were asked to write down any questions they had. The one question asked was looking to link the information presented to their life in the community, the presenter could not provide specific information about how to incorporate vitamins and minerals into their diet- only that they should. The question-and-answer segment was then sidetracked as someone asked a tangentially related question that launched a completely unrelated conversation, which eventually led to the termination of the workshop.