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Charlotte Crandall SIT Study Abroad

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SWAGriculture: A Qualitative Examination of Women's Participation in Samoa's Agriculture Industry as Farmers and Growers
Charlotte Crandall
Independent Study Project
SIT Samoa: Social and Environmental Change in Oceania
Fall 2019
Dr. Fernandez, Dr. Tapu-Qiliho

Abstract

This study is an examination of how women participate in agriculture in Samoa as farmers and growers, what hardships women encounter and how they overcome these, and the organizations that influence people's experiences. Censuses have historically undercounted he number of women in agriculture in developing countries, largely due to rigid international definitions of what counts as labor, which overlook cultural nuances, and this study aims to fill this gap in research. Data was collected through nine Talanoa-inspired interviews with women involved with farming or growing in Samoa, and overarching themes were analyzed. The themes have been grouped by the specific challenges they present, and how participants overcome these difficulties in order to achieve success in the agriculture industry. These include: cultural perspective, financial difficulties, time constraints, lack of knowledge, market access, health and imported food, and climate concerns. This study attempts to bring attention to important challenges and the many success stories that were reported during this research. Women face a series of challenges as farmers and growers in contemporary Samoa; however, they overcome these through assistance from NGOs, their communities, and their own enterprise.

Dedication

I would like to dedicate this project to my host family, who showed me so much kindness during my time in Samoa. Thank you for welcoming me into your home, including me in your lives, spending the semester with me, and for making sure I always had enough food. Thank you for your love, and for your acceptance.

Acknowledgements

This study would not have been possible without the support of the many people who agreed to be interviewed for this project. Thank you to all of you for taking the time out of your busy lives to meet with me and answer my questions; I enjoyed meeting you all. I know your work in farming and growing is very important to you, and I hope I have been able to represent your stories in the best manner possible.

Additionally, this would not have been possible without Dr. Alminda Fernandez, my advisor for this study. Thank you for your extremely valuable advice and assistance throughout this project.

A huge thank you to Dr. Taomi for your help developing this work, and Lise for your support and introduction to this topic. It has been a pleasure to learn from you this semester.

I would also like to acknowledge the SIT Samoa program for giving me the chance to spend three months in Samoa and complete this research. And of course, I would like to acknowledge the amazing students who came on this journey with me. Thank you for your friendship and your support through the difficult times.

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INTRODUCTION

From a foreigner's perspective, it seems that Samoan people generally have a greater awareness of where food comes from than people in many communities in America. This awareness demonstrates itself in the number of people who grow produce for themselves and sell it at a market, the discussion of imported food, and the amount of plants seen everywhere. Additionally, division of tasks by gender is apparent in family life, church, and some social events. As a student, I saw only a limited view of Samoan culture, but the seeing trends of food knowledge and gender differences prompted a more encompassing study of women's participation in agriculture in Samoa.

Women have always been involved in agriculture, but their work has not always been the same as it is today, nor has their work always been recognized. Women's participation in agriculture in Oceania has historically been limited to "women's tasks." However, many women are becoming very involved in farming and growing in Samoa. Some of these women have large-scale commercial farms, while others have smaller gardens. Some balance farming or growing with other jobs, while others are full-time farmers.

There has not been much research on women in agriculture in present-day Samoa. Much of the readily available research generalizes across developing countries or all countries in Oceania, was produced over 30 years ago, or examines only the traditional village structure rather than the urban communities existing today. While this information is valuable, there is a distinct gap in the research that leaves many people's stories unrepresented. Additionally, the researchers often did not speak directly with female participants in agriculture, instead gathering data through men. This study attempts to fill this gap in knowledge through interviews, and

examination of a recently-formed Non-Governmental Organization (NGO) working with women in agriculture as farmers and growers.

This study is an examination of how women participate in agriculture in Samoa as farmers and growers, what hardships women encounter and how they overcome these, and the organizations that influence people's experiences. While many significant cultural and environmental difficulties make it more difficult for women to become involved in agriculture, the strong presence of women demonstrates their impressive resilience to these challenges.

LITERATURE REVIEW

Previous research

In many developing countries, women historically have had responsibilities to their family and community that limited their ability to participate in agriculture. Women are generally in charge of child care, and by extension, tasks near the home (van der Grijp, 2002). Given this reality, men often take over many agricultural tasks, or receive more recognition for their role compared to their female counterparts. Women often participate in tasks compatible with child care, such as garden maintenance and food processing, while men perform the majority of tasks in the fields (Burton, White, 1984). This gender divide historically appears across many cultures, and in Samoa, food production has this same distinction. Women often took on a primary role as a housewife, in charge of domestic tasks, while men spent most of their time working in a field or doing paid work, causing agriculture to become a secondary aspect of the women's lives. There was also some incentive for women to produce crafts, rather than participating in agriculture (Ember, 1983). This is another way in which women take on other responsibilities besides growing food.

Current research literature also suggests that women are often in charge of resource management (Dankelman, 2002). Women in rural villages in developing countries are often in charge of protecting forests and water sources, leading to a deep connection between women and their environment. With this being said, it surprising that women do not participate in agriculture as much as men, although from a more practical standpoint, it is clearer what factors restrict this. Across Oceania, women have a strong connection to land (Dankelman, 2002), so it seems that women do not abstain from agriculture due to lack of interest.

There are many possible factors that can inhibit women from participating in farming and growing. One researcher found that the as the amount of seasonal labor increases, there are more men in agriculture, relative to women (Allen, 2009). During times in which more labor is needed, seasonal workers are often hired from surrounding villages. These workers are almost always men, due to duties near the home required of women. In terms of selling food, he found that women also do more selling close to home, while men perform tasks that require travel, such as exporting and handling financial transactions (Allen, 2009). In general, this is true across Oceania, although with considerable variations across different countries and villages. Allen's research was in Papua New Guinea, however, making direct generalization to Samoa very difficult.

Bindon conducted Samoa-specific research in his 2006 paper. In rural villages in Samoa, agricultural tasks are divided by gender. The specific divisions vary among villages, but in general, men clear bush and carry cuttings to plant new gardens, while women do more weeding and maintaining the garden (Bindon, 2006). In animal agriculture, women perform tasks like gathering along the reef that reliably generate a large amount of food, while men perform more specialized tasks like deep sea diving and pig butchering that make up a smaller portion of the

village's protein intake. There is a link between food and status. For example, chiefs and guests are served first in traditional meals. Men's tasks in food preparation are seen as more prestigious, and food is a pathway for men to establish status.

Censuses have historically undercounted he number of women in agriculture in developing countries (Dixon, 1982). This is largely due to rigid international definitions of what counts as labor, which overlook cultural nuances. Villages practicing subsistence agriculture in Samoa often have unpaid workers—members of the village—who receive food they help produce in lieu of cash payment. Censuses do not always account for this. Additionally, if women growers are self-employed, their labor might not be counted. According to Dixon's 1982 paper, researchers can produce more accurate data by lowering the minimum of time spent laboring in order for it to count as labor, surveying over a long period of time, asking respondents about any secondary occupation and specifics of their tasks, and asking women directly rather than speaking through the men in the household. Therefore, although the agriculture industry in Samoa and other developing countries may seem male-dominated, women have always made significant contributions.

Bringing more women into the agriculture industry—and raising awareness of the women already involved—could contribute to greater overall gender equity across Samoa.

Improvements in this respect, according to some researchers, come primarily from women in leadership; however, attention to the issue of inequality at the local level is also very important (Chan Tung, 2013). Increasing the number of women in governmental leadership positions in Samoa is important, but so is increasing the number of women in the small-scale agriculture industry. This study attempts to increase awareness of how women in Samoa are working toward equality in this way. Much of the existing research did not involve speaking directly to women

participating in agriculture, and this study aims to contribute to the understanding of agriculture and gender in Samoa.

Samoa Women's Association of Growers

The Samoa Women's Association of Growers (SWAG) is an NGO, created in 2018 by three women growers. This group was created to address the difficulties women face in the agriculture industry. The current president of SWAG reported not being taken seriously, saying that agriculture was seen as a man's industry—in Samoa, but likely all around the world as well—and that women could not go to the government for support and expect to receive it. Many people were facing this difficulty, and SWAG was an acknowledgement that these women were not alone. Today, it has grown as an enterprise and has a significant voice in policy discussions, especially considering how recently it was created (S. Burich, personal communication, November 8, 2019). The Samoan government has acknowledged its existence, and SWAG has been able to partner with other organizations, including Women in Business Development and the Samoan Farmer's Association.

SWAG provides opportunities for people to network with others and share their knowledge and stories. There are about 50 members, including some men. The current president reported trial and error in much of the work, and the usefulness of adapting others' knowledge to one's own landscape. Members can share their techniques and learn from each other. They also provide emotional support for each other, which participants reported to be a significant factor in increasing female participation in agriculture. The existence of SWAG seems to have had a significant benefit to local women farmers and growers, in that it provides ways to learn, voice concerns, and deal with challenges.

SWAG has also provided several workshops, which are free for its members. Many projects were arranged through a partnership with some outside entity. The topics of these workshops have included jam and chutney making, pruning, using medicinal plants, and beekeeping. I attended a beekeeping workshop, and saw that it emphasized benefits of beekeeping to both the grower and the environment, as well as acknowledging the disadvantages. The jam and chutney workshops are also popular among members; making these value-added products was cited as a way of reducing food waste. There is emphasis on planet-conscious living, farming organically, and composting. While not all members have gone completely organic, SWAG has organized workshops teaching people to incorporate more environmentally conscious practices into their lives.

Other organizations

Women in Business Development (WIBDI) is another organization similar to SWAG currently operating in Samoa, although these two groups operate differently. These organizations have partnered in the past to create workshops. WIBDI teaches skills to women and families in rural villages. This group has an office in Savai'i which works with local families to assist them in selling their crops locally and overseas. Savai'i is largely a rural island, and many of its residents are involved with farming and growing. The Women in Business group in Savai'i is celebrated for its "on-the-ground" work, directly interacting with families and small communities. Workers for this organization generally interact first with the *matai*, or chief, of a community in order to best understand the needs of the area (G. Stewart, personal communication, November 26, 2019). WIBDI accounts for Samoan cultural values in its approach to assisting these rural Samoan families.

Samoa Farmers Association (SFA) is another group that works to support farmers and help them increase their income by building relationships with markets ("Samoa Farmers Association," 2019). This group works primarily with subsistence farmers in rural villages. It also serves as a link between government and farmers, and its policies align with the national government's plan for developing Samoa's agriculture industry in a manner that is sustainable and beneficial to farmers. Although this research focuses mainly on SWAG, due to the relative convenience of accessing its members over the members of other organizations, there are several organizations—in addition to SWAG and these two—that are doing important work to protect the interests of farmers and growers in Samoa, using a wide variety of approaches.

METHODOLOGY

Initial research question

Do women in Samoa participate in agriculture? If so, how and what happens?

Initial Objectives

The initial objectives of this study were as follows:

- Analyze the history of the agricultural sector in Samoa and the participation of women as farmers and planters since independence.
- Examine factors that prohibit or encourage female participation in the agricultural sector.
- Document the establishment and existence of the SWAG organization and tell success stories of women in agriculture.

Constraints

This research was completed between November 2st, 2019, and December 2st, 2019. Due to the limited time available for this research, it was necessary to limit the number of interviews. Additionally, due to a measles outbreak that resulted in a national state of emergency in Samoa, some individuals were likely restricted in their ability to participate in the study. Given these constraints, and along with the nature of research that only reaches out to a small minority of a population, it is impossible to generalize the following results to everyone's experience.

Paradigm and Methods

Given the reality that this research was conducted in Samoa, it was important to use a Pacific Research framework. Information was gathered through Talanoa-style sessions with participants in order to hear their story. These were not pure Talanoa sessions because they were structured enough to resemble interviews, and involved only one meeting, rather than a series of conversations meant to build a relationship. However, the structure was relaxed enough to allow participants to discuss issues that the researcher would not have otherwise considered. Nine interviews were conducted, most lasting between 30 minutes and one hour, with few being shorter. These interviews were audio recorded, and notes were taken during the session.

Most of these interviews took place on Upolu, with most taking place in Apia and two taking place at participants' homes, within a 12-kilometer radius of Apia. One took place on Savai'i. The interviewees were selected based on their ability to take the time to participate, and on the researcher's ability to contact them without disrupting their work. The interviewees included both members and nonmembers of SWAG, as well as the current president of SWAG and two of its cofounders. Interviewees were found through personal and professional

connections to the researcher, SIT program staff, and the advisor for this study, and at a beekeeping workshop provided for members of SWAG. Interview topics included the participant's personal relationship to agriculture, and for participants with leadership positions in SWAG, information about the organization as well as their personal connection with it.

Ethical Considerations

Oral consent was recorded during all the interviews, and all participants were given the option to decline to participate. Participants were also given the option of having some or all aspects of the interview attributed to them, and of being completely anonymous. With the exception of a few quotes regarding participant's professional work, to which the interviewees gave permission to attach to their name, the anonymity of all participants is protected in the following results. The recorded interviews and transcripts are password protected, and all will be deleted on or before December 2, 2020.

Additionally, as an American student, I have my own inherent biases and preconceived notions about Samoan culture, so I made every effort to acknowledge the distinction between the participants' responses and my own interpretation of everything I learned. This effort is important as it attempts to prevent the participants' responses from being distorted in this representation.

RESULTS

Interview data was analyzed by identifying recurring factors across multiple interviews, and further examining the nuances of these factors. The following table is a brief representation of many of the important themes with some specific quotes highlighted, although the discussion section of this paper is a much more in-depth explanation of participant's specific experiences with these—and other—topics.

Of the participants in this study:

- Six are members of SWAG, and three are nonmembers. Of the members, two are cofounders and one is the current president of the organization.
- All grow a variety of food. The primary crops grown are: vanilla, cocoa, and ornamental
 plants. Other crops include: coconut, coffee, papaya, banana, cabbage, taro, mango, lime,
 and herbs.
- Eight discussed their own work as farmers and growers, and one discussed her work with WIBDI assisting farmers and growers in rural villages. Of the eight who discussed their own growing, four also discussed the overlap between farming and their other jobs or obligations.

Factor	Women	Description	Evidence
	involved		
Introduced by family	9	Participants were	"My grandfather was a peanut farmer, so I always remember being on the plantation, picking
		introduced to	the peanuts with my grandfather."
		agriculture by some	"I grew up on the cocoa farm, so really this is how I'm used to living."
		member of their family	"It's a family businessmy mother started growing plants as a hobby."
			"Our farming is a family affair. Our parents grew a lot of things."
Value of networking	9	Participants mention the	"I met a lot of people, making new friends, socializing I like hanging out there [at the market]
		importance of	and watching the others that sell stuff."
		connecting with other	"If I get a few women together to do a project, we could do it. And we could do it on our own
		farmers and growers	sections, on our land near our houses."
		facing similar	"Networking with other women who might be growing similar things, sharing stories, sharing
		challenges	experiences, sharing the tools they use. We're growing together, learning from each other."
			"Anyone that's interested in vanilla, I'll teach them."

Selling	8	Participants sell some of their food or plants	"There's a florist in town. When she wants some flowers, she'll call up I sell quite a few potted plants too." "We sell them. There are days like the Teuila fest, and farmers or plant growers do take them down and sell them." "I can plant those and sell back to the store."
Organics	6	Participants maintain their crops using fully organic methods: no non-natural pesticides, fertilizers, etc.	"I do organic farming. This is all organic; I don't use any chemicals." "We [SWAG] promote organic farming; we do not promote pesticide use unless it is organic. We go back to traditional methods." "I'm also a very strong organic advocate, and of composting." "I live organically; I only eat what I have in my garden."
Health	6	Participants express concern for health in Samoa as a priority in their growing	"You want to grow a healthy nation, so you have to start in your backyard." "[Customers are] getting into healthy eating and concerned about their health." "The most important message that we [SWAG] need to instillis the health aspect of what we're going and how we're growing it." "[Growing] is fun. It's very healthy and very satisfying."

Lack of support for	5	Participants state that	"Women don't have <i>matai</i> titles in this village, so we don't really have access or rights to take
women		women struggle with	up any land."
		lack of support from	"If you're a woman it's doubly hard. I didn't have a lot of support when I came it's unusual for a woman to come and start a farm and employ people and tell them what to do."
		communities and	Tor a woman to come and start a rain and employ people and ten them what to do.
		organizations	
Full-time farmer	5	Farming or growing is	"That is my livelihood"
		the livelihood for some	"It is my livelihood: growing and selling."
		participants	
Exporting	5	Participants sell some	"Maybe next year, tropical flowers and those plants for export."
		of their product	"I've turned it into a business, so I make products and I export vanilla beans."
		overseas	"I've actually decided that I'm not going to export beans next year; I'm going to keep them
			local."
Harm of	4	Participants mention the	"It's about keeping things local and keeping the economy going here. Everyone's always in a
commercialization		detriments of increased	rush to export stuff, but no one's thinking about the domestic market. Are we going to be a
		cultural shift in Samoa	domestic market of imported foods?"

	towards purchasing	"Now they [Samoan people] are depending on the commercial."
	products instead of	"A lot of people are aware of it, but it's just people's consumption. It's just the way of living is
	growing or making	changing. There's more products out there now."
	them	
3	Participants report	"There's a lot of stealing going on on my roadside. One day the whole thing is bushy; the next
	observing theft of their	day there's no bushes, just soil. The whole thing has been pulled up."
	plants or tools	"The other 80 percent [of my employees] were stealing. Some stole expensive tools."
3	Participants use	"I do my own composting; I do my own mulching."
	composting methods	"I mix my own soil, I have the compostI use sheep dung or chicken manure. I mix it all with
	and other natural	the soil."
	fertilizers	
3	Participants use the	"[SWAG] has a planet conscious approach. We want people to understand what they're
	term "planet-conscious"	growing, how it affects different things, from the soil, the environment, to what they're eating."
	in reference to their	"I live organicallythat's what I call planet conscious living, and I decided to be that way
	approach to life and	when I decided to become a grower and a farmer."
	growing	
	3	products instead of growing or making them 3 Participants report observing theft of their plants or tools 3 Participants use composting methods and other natural fertilizers 3 Participants use the term "planet-conscious" in reference to their approach to life and

	T _	T=	T
Problems with	3	Participants have had	"I was finding it really difficult to have local help. I've probably employed all of this village
employees		difficulties working	and the next village on both sides. You pay them well; you feed themYou really try to look
		with paid employees	after themThey have no idea what they're doing."
			"Even having one worker, you have to be there all the time because they either kill the plants
			or don't follow instructionsthey'll even go to sleep."
			"Staff consistently don't come to work; they don't turn up if they don't want to."
Social media	3	Participants use social	"I do a lot on social media, I have a blog as well. I connect with people about the journey I have
		media for either	taken."
		marketing or selling	"On Facebook, there's a free marketing tool. When I started advertising on this free market
			place, I was the only one marketing plants, and now today, practically every two or three days
			you see new women advertising plants."
Agritourism	2	Participants express	"I've started to run eco tours on my farmwhat they are called is ecological
		interest in using	agritourismPeople are actually wanting to have the experience of coming on a farm, and
		agritourism as a source	actually learning about where our food comes from."
		of income	"I want to use my existing farm as a training farm and agritourism opportunity as well and
			teach people about vanilla."
-		L	

Acquiring	2	Participants apply for	"I inquired about how to get some funding from the government to start planting up at our
government land		land grants from the	farm."
		government to expand	"Next year, I'll apply for a five-acre land from government to do commercial flower cut
		their businesses	business."
			"The land I'm looking at getting will be government lease. We're looking at a long-term lease."
Concern about	2	Participants express	"You cannot detect what the weather will beyou just don't know what's coming
extreme climate		concern about cyclones	throughYou just pray that you're not going to go through this year with a cyclone."
events		and other disasters, and	"We certainly do get cyclones. When rivers flow, there's a natural overflow that comes down
		how climate change	the side of our property."
		exacerbates these	
		problems	

DISCUSSION

The purpose of this work was to develop understanding of how women participate in the agriculture industry in Samoa, through interviews with the women directly involved. There were several themes that appeared in multiple interviews. This section of this report is divided into the specific challenges that participants described, and how participants overcome these difficulties in order to achieve success in the agriculture industry. These include: cultural perspective, financial difficulties, time constraints, lack of knowledge, market access, health and imported food, and climate concerns. Both SWAG member and nonmember participants reported solutions to these issues, and the nuanced factors that create or inhibit solutions.

<u>Cultural perspective</u>

The president and founders all reported that farming is traditionally a man's job, and that women's male counterparts in their personal and professional lives often do not take them seriously. One respondent reported that she knew many women who "wanted to expand their business, and found it very challenging as to who to go to for help," and that "people would not take women seriously." Another respondent described disrespect and sabotage by her village and her extended family because of her success. However, she also expressed her belief that bringing women to support each other makes a significant impact on who gets involved. She stated that "women thrive when they do things together." She went on to report that while there is a culture of competition in Samoa and it sometimes does not take very much to create resentment between women, the same women can create an incredible support system just as easily. By finding support in each other, women can overcome the lack of support from their communities and governing bodies.

All nine participants mentioned social networking in some form—SWAG members all reported speaking with other members to share strategies and provide emotional support, while nonmembers discussed working with family, friends, and neighbors conducting similar projects to them. Social networking and providing support to friends seems to contribute significantly to women's success in agriculture.

SWAG was created, in part, to address this lack of support, and to guide people to assistance with any issues they face. The government has acknowledged the existence of SWAG and the importance of its work, so they are being asked to sit at policy tables and contribute to change (S. Burich, personal communication, November 8, 2019). The organization utilizes this platform to advocate for equality. Members report bringing issues to the table that the government would not otherwise know were relevant. By doing this advocacy, SWAG can reduce these issues.

Financial difficulties

Seven of the respondents reported finances as a challenge for their participation. Farming and growing requires significant financial commitment: the ability to acquire land and crops, purchase tools and supplies, and pay employees is a necessary component. One participant mentioned that women's financial assets are generally tied up in their families and homes. This usually means that women struggle to take on projects of their own interest until their children leave home or become financially stable. The same participant also reported that women often cannot get collateral for funding, because their money and resources usually go to their families. Another problem interviewees mentioned is that for many crops, people do not see profits for a few years after starting with them. This means people need some other source of income while

developing their garden. Because of the significant time commitment required for growing crops, this is also a barrier to participation in agriculture.

SWAG hopes to mitigate this problem by creating a fund in the coming years to help members expand their businesses. One major goal of SWAG is to give members the option to grow their businesses, and the organizations' leadership acknowledges that moving away from the financial security of a paid job is a significant risk. The president stated that SWAG is "asking donors to help create funding institutions women farmers can access, and not necessarily as a loan." She reported that people do not want to go into debt, especially when many of them are already in debt. They are looking for grants, and having conversations with government about these financial challenges. The government is listening and taking these issues into account, and participants were hopeful that this government awareness will indeed lead to progress.

Some individuals are also applying for grants, mainly from the United Nations

Development Programme (UNDP). Participants reported applying to these grants to expand their individual work in some way. One applied in order to get funds to build a shade house for her plants and pay employees. She tried to apply earlier, but the deadline for application kept getting pushed later, and she expressed frustration at the uncertainty surrounding the availability of this type of grant. Two participants reported looking for a lease of land from the government in order to expand their businesses; with one participant growing vanilla and the other producing cut flowers. This is another way in which people can expand their businesses and produce much more product.

Employee challenges

Additionally, three participants reported problems with employees as a significant challenge. The three of them all mentioned that employees would often show up to work a few hours late, or not show up at all. Two of them also reported that employees would sleep at work. All expressed that employees would often not know what they were doing, or be very productive. One respondent, who lived in New Zealand for many years before returning to Samoa, stated about her former employees: "they have no idea what they're doing, when you try to show them what to do, they look at you like, 'what do you know? You just came from overseas'...when you're a woman it's doubly hard." Even though she is the boss of her plantation, employees would refuse to learn from her. The same person reported that she would put all her money and energy into feeding and caring for her workers, and none of them would be as productive as she was. She and others reported that they would have to spend a lot of time supervising employees. One stated that: "if you have a worker, you have to be there all time, because they kill the plants or don't follow instructions." Hiring people is often too large a strain on time and energy for this to be practical.

These participants all solved this problem by bringing in workers from overseas and having them either train or work alongside locals. One hired a team of experts from the Philippines. She also described using a dripping system, which delivers water and nutrients to each plant and removes some of the need for human labor. This is a less common practice, and it is an innovative way to solve the problems that employees sometimes create. The other two bring in volunteers from overseas through Help Exchange (HelpX) and Worldwide Opportunities on Organic Farms (WWOOF). These are both services that allow volunteers to travel around the world and work on farms—usually organic farms—in exchange for accommodation and food.

Interviewees reported these workers to have a better work ethic, and sometimes more experience with farming than the local employees. The international workers generally set an example for the locals and generate more overall productivity. However, one interviewee also mentioned that a large group of volunteers leads to less productivity, since they are often spending time together or sightseeing rather than working hard. Farmers are able to utilize these opportunities for international help to overcome some problems they face locally.

Theft

Three participants reported theft as another financial strain. Two of these people mentioned that much of the thieving they experienced came from their employees. They all described plants being stolen, and one mentioned that her employees would steal expensive tools. As a way of explaining this, one said of Samoa: "we're a culture with very few boundaries." She linked this to the communal lifestyle that has historically existed and still persists in Samoa, explaining that theft may be an increasing problem due to the transition away from this communal worldview. She said: "it used to be a system where everything was shared, and now that other people have more than others, people tend to get jealous of what you have even though you have nothing. They have this perception that you have something." This inequality of wealth seems to contribute to the problem of theft.

These participants all reported that there is not much that can be done about theft, besides getting a fence and regularly patrolling the farm. This is another case in which people spend a great deal of time monitoring their employees. Although they can take steps to mitigate theft, no one can monitor their land constantly, so theft is unfortunately common. However, participants dismissed this problem, seemingly as a fact of life, saying things like "it doesn't matter," or "I

ignore it." This attitude might also come from Samoa's communal worldview. These farmers and growers cannot completely end the problem of theft, but they refuse to let it hold them back.

Time Constraints

Amount of spare time is also a factor in female participation in agriculture. Of the participants in this study, four are full-time farmers or growers and four are part-time, while one works full-time with both full-time and part-time farmers and growers. Of the full-time growers, two are retired. Balancing a full-time job with farming or growing is difficult, and so is giving up a steady income in favor of becoming a full-time farmer or grower. Additionally, women have obligations to their families and communities that also place a demand on their time. Even without other obligations, farming can be a very significant time commitment. Participants reported working long hours, and learning when it is necessary to say no to additional commitments. One participant stated that "women are born to multitask," and that women learn to cope with their many responsibilities. This is a testament to the dedication these women have to farming and growing, that they are making time in their already busy lives to do what they love.

Some people hire employees to reduce the demands on their time, and three participants reported having trustworthy employees that had been working for their family for years. While this has been a successful choice for some, others have had serious problems with employees regarding work ethic, ability to work long hours, and theft. Others recruit family members to help. One participant works in tandem with her husband, and the two of them split most of their tasks evenly. Another participant works with her mother and son, although she reported doing the majority of the work. Samoan culture places significant value on family, and women turn to

their families for help when they can. However, the opportunity to accept help from family is not available to many Samoan women. One participant lives in a village where women do not have *matai* titles or land rights, but she described her mother as a matriarch who left a strong legacy in her family. She explained how her brothers support her farming, but if that they had been raised in a more traditional manner, they would likely not do this, and that she has received negative attention from her extended family and her village because of her success as a farmer. While many women receive help from family members, many others are unable to find the same support from their relatives. This is a challenge that SWAG recognizes—the organization aims to provide assistance as well as create emotional support for those women who cannot find such help anywhere else.

Lack of knowledge

Participants named lack of knowledge or information on how to successfully farm or grow as a barrier to inclusion in agriculture for some women. Many people did not have the opportunity to learn skills from their families growing up, either because their families did not encourage female participation in agriculture, or because the families did not know either. One participant reported using trial and error in her work. Another described bringing in a team of workers who already had considerable knowledge about farming. Others use the internet to look for information, or ask for advice or help from other local farmers and growers.

Three participants in particular mentioned adapting some strategy used elsewhere to a new landscape. One had helpers from Vanuatu and Tahiti assist her in setting up her plantation and tell her about their schedules of tasks, and she modified those techniques to best fit her land. Another has a team of employees from the Philippines who bring their knowledge of agriculture

in their home country, and she adapts it to her the land and climate of Samoa. Floris, another participant, performs a similar service in the Solomon Islands, using techniques she uses in Samoa on her cocoa plantation and developing value-added products. People who attend these workshops have been able to get more use out of their cocoa, in a form appropriate to the culture and environment of the Solomon Islands.

Another participant discussed lack of knowledge as a problem in rural villages. They receive UNDP grants, but as she stated, "there's a lot of money being poured into the villages. It won't last." She went on to describe how people do not know what to do with the funds they receive and how to use them sustainably, in order to keep generating produce. Some youth groups will build a large shade house and then get very little use out of it, because they do not know what to put inside, or they do not know what types of cloth are the best for what they are trying to grow. Sometimes they do not save seeds, and cannot plant a new series of crops.

Although not all villages face these challenges regarding different methods of growing, this participant perceived it as a serious problem impacting food security in rural villages.

SWAG is a platform through which people can learn and share their knowledge, and has become a resource for people to learn new skills. The SWAG leadership decides what workshops to facilitate by looking at what grants are available and canvassing members. When they select a topic to show, the organization partners with some other entity which comes in to assist.

Additionally, all but two participants reported interactions with some NGO, either SWAG or Women in Business Development (WIBDI). WIBDI aims to assist the economies of rural villages through close engagement with small communities, and is likely doing the most to address this issue of lack of knowledge in rural villages. This organization helps families to sell and export their products. They also provide education. These and other NGOs provide a

solution to the lack of knowledge and resources that creates barriers to income beyond subsistence.

SWAG has held many workshops aimed at reducing this lack of knowledge, with topics including beekeeping, pruning, medicinal plants, and in particular, a jam and chutney making and pickling workshop. One participant stated that preserving skills are not part of Samoan cultural practices, because in a tropical climate there is no need to preserve food for the winter. Making jams and chutneys is a relatively new practice in Samoa, so having this knowledge creates opportunities for people to expand to a new market. Additionally, this gives people the opportunity to sell products made from produce out of its season, thus reducing the competition for customers that occurs when everyone only sells what is in season. The same participant discussed how making this knowledge available leads to empowerment, and that this is one of SWAG's main goals. She said about empowerment: "it's not just about giving people skills; it's about giving people choices so they can decide for themselves what they want to do." Even if people decide not to implement the skills they may learn through SWAG, they can still benefit from learning them and deciding whether or not to use them.

Market access

Three participants mentioned preferring the more rural areas of Samoa to in urban Apia and therefore not wanting to spend time in Apia, and several are located fairly far from town. However, much buying and selling takes place in Apia, so making the journey into town is a potential difficulty for some women farmers and growers. Reliable transportation is required, as well as the time commitment of commuting. Additionally, commitments to housework and child care have historically kept women near their homes. Because of this physical distance and these

obligations, accessing a marketplace can be a barrier to some women's participation in agriculture. The internet seems to be the most significant way that people can adapt to this challenge, and is a compelling possible reason why more women are doing agriculture today.

Two participants mentioned selling products on social media, and two others discussed using Facebook or a blog for marketing and advertising purposes. One discussed selling her ornamental plants using Facebook marketplace. She reported that use of this platform increased greatly in the past four years. She has an officially registered business selling plants, but many people who sell on Facebook are not officially registered, and while she is happy these people have a source of income, it does not feel fair to people who are paying for business licenses and paying taxes. Additionally, she reported that many of the people selling ornamentals are women, with a few couples working together. Facebook marketplace is becoming an increasingly significant platform for more women to become involved in growing and selling.

Another participant discussed the Maua app, which is a fairly new marketplace app that allows people to find customers online. This app is specific to Samoa, with the intention of reducing the need to travel long distances to sell products, as well as providing customers with information about the locations of various sellers. A description of the app in the Samoa Observer stated: "It should benefit women and people with disabilities, people who typically struggle to access the regular marketplace because of transport, cost or family barriers" (Mayron, 2019). Historically, women have done tasks near the home, while men did tasks that involved traveling long distances, including selling various products. However, modern technology has made sales compatible with work near home, giving women—and other people who may struggle to access a typical marketplace—the option of developing a business while avoiding the

hassle of commuting to Apia and remaining committed to traditionally female tasks around the home.

Health and imported foods

Imported food is common in Samoa, despite its potential harm to human health and to the local economy. Six participants discussed placing a high value on health. SWAG leadership mentioned the need for health concerns to be discussed thoroughly in the conversation about food production. Another participant, who has a prominent position in the Frankie's grocery store chain, discussed the importance of keeping healthy food in stores. She talked about the necessity of providing healthy options in grocery stores, saying "I do a lot of ordering myself, so I always look for options for people on diets—the healthier options." She expressed that her goal is to provide new kinds of healthy food so customers can more easily find healthy options they enjoy:

"People were only looking at what we bring in; we were not giving them options.

As we travel, we...change our way of doing things...we bring that into our supermarket as a trial to see if people actually want to do the changes, and surprisingly, a lot of these things we brought in, they are starting to buy.

[Customers are] getting into healthy eating, and are concerned about their health."

(M. Laung Hing, personal communication, November 19, 2019).

Healthy options can be difficult to find in stores, given the prevalence of imported food in Samoa, so this commitment to including more nutritious options is quite admirable.

Providing healthy food to stores is another significant a way people can develop a

nutritious lifestyle for themselves and their communities, along with growing healthy food on a more local scale.

Another participant discussed the importance of selling food locally, rather than exporting it. She questioned of Samoa: "are we going be a domestic market full of imported food...cheap foods that have no nutritional value? Is that what we're about?" These unhealthy imported foods can be a threat to the health of Samoan people. She also mentioned the importance of having a personal connection to the food, and keeping the best and healthiest foods in the local market, saying that "it doesn't make any sense that we send the best things away," and that unfortunately, every country exports their best foods to some extent. Additionally, she stated that: "you [Samoans] want to grow a healthy nation, so you have to start in your backyard." Growing locally is a significant way to maintain health, a deep emotional connection to the food, and a less dependent national economy.

Climate concerns

Participants reported multiple threats as a result of climate change. These included unpredictable weather and natural disasters, a changing landscape, and increasing cost of water. They also report some people struggle to behave in a climate-resilient manner due to market demands. Many people, however, are working very hard to protect the planet from further harm. SWAG takes a "planet-conscious" approach in their work and teach members to reduce their negative impact on the planet. While all participants are prioritizing the environment in their work, they do so in different ways, and many are unable to embrace all methods caring for the environment.

Many farmers and growers in Samoa use completely organic methods. As a developing country, Samoa has avoided many of the mistakes of fully industrialized countries when it comes to agriculture. The large-scale, mono-cropping, toxic pesticide style of farming does not appear much here. This is partially because Samoan people never used these methods and did not have to do much work to "return" to traditional, less environmentally destructive methods, since many never departed from these ways, and partially because these inorganic fertilizers and pesticides are imported and therefore very expensive (M. Maualaivao, personal communication, November 20, 2019). However, using completely organic methods is not easy for everyone. Markets, particularly overseas markets, demand a substantial amount of product, and meeting this demand without using some inorganic technique can be extremely difficult. Not all of SWAG's membership is completely organic, but the leadership welcomes people no matter their techniques, in the hopes of teaching members to use sustainable methods. Six participants in this study reported using fully organic methods. Of those who use organic methods, five are SWAG members. SWAG is incorporating some indigenous knowledge of agriculture in order to increase the yield of a given amount of land, and therefore reduce the need for these pesticides. Some of this knowledge has been passed through families who never stopped using it, and the Ministries of Agriculture, Women, and Cultural Development have helped provide some (S. Burich, personal communication, November 8, 2019). SWAG aims to provide ways to keep Samoan agriculture sustainable, but the reality of local and export markets makes this difficult in practice, and therefore not universally implemented.

Aside from organic farming, participants display environmental conscientiousness by employing waste reduction practices such as composting, recycling, and preserving. Three participants talked extensively about their composting work, while another mentioned returning

nutrients to the earth in her "planet-conscious" approach. One participant talked about her efforts to reuse as many containers as possible. She paints as many plastic and metal containers as she can find, and pots ornamental plants in them to sell. She has also planned to bring in youth from her community to help paint these containers and learn about recycling in the process. This work is very important in that it brings attention to the need for waste reduction. Additionally, as discussed earlier, people are also learning to use methods like jam and chutney making, and pickling, in order to reduce food waste. Participants described all these methods as means of reducing waste in Samoa.

Not everyone in Samoa has completely embraced the waste-reduction approach, unfortunately. Four participants reported that commercialization leads to waste production, lifestyle changes, and problems with littering. Samoa is shifting from a subsistence-based economy to one with many more imported products, and people often buy products that they would normally make themselves, or do without. Many people do not know how to manage their waste, and end up throwing it outside. This problem is greatest in rural villages, where the garbage-collecting and recycling infrastructure is not in place as much as it is near urban areas. People generally throw this waste in their backyards, so the front of their property can remain beautiful. While some people in Samoa, including participants in this study, are working to address this issue, waste disposal remains a serious concern.

In addition to mitigating the threat of climate change, participants have demonstrated resilience to its already present impacts. Participants reported that as a result of climate change, the weather is unpredictable and seasons do not appear at the same time as usual, droughts and floods have occurred, and extreme events such as cyclones are happening more frequently. Two participants reported planting trees to deal with different problems: one described using these

trees to reduce erosion, and the other uses them to provide shade for some plants and counteract the extreme heat. Another participant, who has used trees to support vanilla vines on her plantation, suffered from a cyclone that knocked over some trees, killing the vines surrounding them. She is working on creating artificial supports and a shade house, which are less likely to be destroyed in a cyclone and are easier to replace than fully-grown trees. These anecdotes are just examples of ways in which Samoan people are fighting the worst impacts of climate change.

CONCLUSION

Women face a series of challenges as farmers and growers in contemporary Samoa; however, they overcome these through NGOs, their communities, and their own dedication. Some of these challenges are rooted in the *Fa'aSamoa*, or the Samoan way, such as cultural conceptions of "women's work" and market access. Other challenges—climate change, imported food, and economic inequality, among others—have developed more recently. The history of these challenges has shaped how people can overcome them. SWAG and other organizations aim to mitigate these challenges by advocacy in government, providing workshops, and communicating directly with women farmers and growers about their concerns. Women also find assistance through their families and villages, and by seeking out other farmers and growers having similar experiences. Additionally, some people have sought out solutions on their own—researching techniques, developing methods of managing waste, finding workers, dedicating significant amounts of time to their work, and more. Although these and other challenges will be difficult to completely eradicate, with all the important work these many women are doing, the future is promising for women farmers and growers in Samoa.

RECOMMENDATIONS FOR FURTHER STUDY

There are still unanswered questions about similar topics. A further research project could examine women farmers in rural villages, as the participants in this study were located primarily near Apia. Within agriculture, explorations of other organizations such as Women in Business Development and the Samoa Farmer's Association would be very compelling, particularly looking at WIBDI's work with rural villages. The role of social media in contemporary food marketing in Samoa was one of the more interesting results, in my opinion, and a more thorough exploration of this would be very interesting. Additionally, a more comprehensive exploration of gender equality in Samoa would be informative and valuable.

An alternative method for conducting a study similar to this would involve creating a brief survey for members of one prominent organization, which they could fill out online in their own time in order to reach more individuals, while also conducting interviews with the leadership of that organization. However, the experience of speaking directly with as many people as possible—as opposed to reading their surveys—is extremely valuable, as it allows participants to respond in detail and express what is most important to them. Speaking with a wide group of participants is important, and so is learning as much as possible from each participant, and any future researchers should keep this in mind.

PERSONAL COMMUNICATIONS

- S. Burich, personal communication, November 8, 2019.
- M. Laung Hing, personal communication, November 19, 2019.
- M. Maualaivao, personal communication, November 20, 2019.
- G. Stewart, personal communication, November 26, 2019.

SECONDARY SOURCES

About WWOOF. (2019). Retrieved from https://wwoof.net

- Allen, B. (2009). Agricultural Development, Policies and Governance. In R. M. Bourke & T. Harwood (Eds.), Food and Agriculture in Papua New Guinea (426-488). ANU Press.
- Bindon, J. (2006). Food, Power, and Globalization in Samoa. Prepared for the ASAO meetings in San Diego, February 8, 2006, 1-13.
- Burton, M. & White, D. (1984). Sexual Division of Labor in Agriculture. Wiley on behalf of the American Anthropological Association. *American Anthropologist, New Series*, Vol. 86, No. 3, pp. 568-583.
- Chan Tung, A. L. (2013). Leading the March for Gender Equality? Women Leaders in the Public Services of Samoa and Solomon Islands. In D. Hegarty & D. Tryon (Eds.), *Politics*,

 Development and Security in Oceania (139-145). ANU Press.
- Dankelman, I. (2002). Climate Change: Learning from Gender Analysis and Women's

 Experiences of Organising for Sustainable Development. Taylor & Francis, Ltd. on

 behalf of Oxfam GB. *Gender and Development*, Vol. 10, No. 2, Climate Change pp. 2129.

- Dixon, R. (1982). Women in Agriculture: Counting the Labor Force in Developing Countries.

 Population Council. *Population and Development Review*, Vol. 8, No. 3 pp. 539-566.
- Ember, C. (1983). The Relative Decline in Women's Contribution to Agriculture with

 Intensification. Wiley on behalf of the American Anthropological Association. *American Anthropologist, New Series*, Vol. 85, No. 2, pp. 285-304.
- Fa'a Samoa. (2018). In Wikipedia. Retrieved from https://en.wikipedia.org/wiki/Fa%27a_Samoa
- Matai: A Complicated System of Chiefs. (2019). Retrieved from https://lsamoana.com/matai-a-complicated-system-of-chiefs/
- Mayron, S. (2019, August 23). Maua app promises one-stop mobile store. *Samoa Observer*.

 Retrieved from https://www.samoaobserver.ws/
- Samoa Farmers Association. (2019). Retrieved from https://www.samoafarmers.ws
- Samoa Women's Association of Growers. (2018). Samoa Women's Association of Growers Constitution. Apia, Samoa.
- Van der Grijp, P. (2002). Selling Is Poverty, Buying a Shame: Representations of Work,
 Effective Leadership and Market Failures on Wallis. Published by: Wiley on behalf of
 Oceania Publications, University of Sydney. *Oceania*, Vol. 73, No. 1, pp. 17-34.
- Ward, R. G., & Proctor, A. (Eds.). (1980). South Pacific Agriculture: Choices and Constraints, South Pacific Agricultural Survey 1979. Canberra, Australia: Australian National University Press.
- Welcome to Help Exchange (HelpX). (2019). Retrieved from https://www.helpx.net
 Women in Business Development. (n.d.) Retrieved from https://www.womeninbusiness.ws/

APPENDICES:

Appendix A: Interview questions

- 1. How did you decide to enter the agriculture industry?
- 2. What crops do you grow? How did you decide on these?
- 3. Is farming/growing your livelihood? Or do you have other major priorities? (other job, homemaking, etc.)
- 4. Who helps you? Does your family help? Do you have paid employees?
- 5. Do you own the land you use to farm?
- 6. What tasks do you perform yourself and what do you delegate to others? Why?
- 7. How much of the process do you carry out? (preparing land, planting, harvesting, processing, selling, etc.)
- 8. How do you balance your growing with other demands on your time? (child care, church, family, village, etc.)
- 9. What have been some challenges you have faced in the agriculture industry?
- 10. How do your tasks vary over the course of the year?
- 11. Who eats the food? (You, family, village, sell it, export it)
- 12. How did you become involved with SWAG? How does this organization help you?
- 13. In your opinion, should more women be involved in agriculture? If so, how can women be encouraged to participate?
- 14. Is climate change a serious threat to your ability to grow crops?
- 15. Is there anything else you would like me to know about your relationship with agriculture? Please note that interviews were guided more by participant responses than by this list of questions, and follow-up questions were asked frequently.

Appendix B: Glossary of abbreviations and Samoan words

Abbreviations

NGO: Non-Governmental Organization

SWAG: Samoa Women's Association of Growers

WIBDI: Women in Business Development

SFA: Samoa Farmer's Association

UNDP: United Nations Development Programme

WWOOF: Worldwide Opportunities on Organic Farms

HelpX: Help Exchange

Samoan words

Fa'aSamoa: "Fa'a Samoa in the Samoan language means The Samoan Way, and describes the

socio-political and traditional-customary way of life of the Samoan culture.

In Samoa, its culture embraces an all-encompassing traditional system of behavior and

responsibilities that spells out all Samoans' relationships to one another and to persons holding

positions of authority." ("Fa'a Samoa", 2018).

matai: "Matai is the Samoan word for leader, or chief, or even (in the poetic sense) father.

Samoan society is organized by family, and each family has its own *matai* titles, which are

connected to certain districts, villages and plots of family land. ("Matai: A Complicated System

of Chiefs," 2019).

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