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ABSTRACT

This study explores the relationship between a Cuban organipónico, an urban, organic cooperative farm, and the surrounding community, particularly in regard to increasing agroecotourism. This was examined through the community capitals framework which allows for the use of a systems approach to inventory and analyse assets and wealth stocks within the community. Individual interviews were conducted in the summer of 2013 with members of the farm cooperative to explore the relationship between the farm and the community, and the way tourism to the farm has improved community capitals. Overall, this study demonstrated the ability for agroecotourism to help support goals of food security, beyond acting only as a tool for economic diversification, but also by influencing other community capitals. The study also adds to the literature on agroecotourism, tourism development in socialist contexts, and the way in which tourism can help support and grow sustainable agriculture.

Keywords: Agroecotourism, agroecology, agriculture, community capitals framework, community development, Cuba

Introduction

Between 1959 and 1989, Cuba went through drastic political, social, and economic changes brought about by the Revolution. Included in this was policy reform in the agricultural industry that moved private land into government control in order to address the inequitable nature of the Cuban economy. In doing so, the industry faced production inefficiencies that resulted in reliance on food imports. With the dissolution of the Soviet Union in 1989, food imports dissolved, fuel shortages prevented the use of farm equipment (e.g. tractors and machinery), animal feed for livestock was limited, and there was a

shortage in fertilisers and herbicides that caused agricultural production to drop to disastrously low levels. Cuba entered into an era characterised by food scarcity, famine, and extreme food rationing. Cubans had to transform their agricultural industry to traditional practices based on agroecology, learning how to grow food without fertilisers, pesticides, and machinery (Pérez, 2011). Organipónicos, or urban organic cooperative farms, emerged across Cuba in order to help alleviate food insecurity by bringing production to local farms. Consequently, Cuba has become an international model for agroecological practices and is attracting scientists, educators, farmers, and other agroecotourists. Using the community capitals framework (CCF), this study investigates how increased agroecotourism to a Cuban organipónico has influenced the farm's impact on the local community.

The CCF is a systems approach that focusses on assets, instead of deficits, by 'identifying the assets in each capital (stock), the types of capital invested (flow), the interaction among the capitals, and the resulting impacts across capitals' (Emery & Flora, 2006, p. 20), that are critical to communities so that inter-relationships between them can be explored in a practical way (Callaghan & Colton, 2008). The CCF has been identified as a tool with strong applicability to tourism research because it can examine and evaluate movements, programmes or industry within a community or region (Flint, 2010; Griffin, 2013; Lima & d'Hautesserre, 2011; McGehee, Lee, O'Bannon, & Perdue, 2010; Zahra & McGehee, 2013). Using the CCF as a framework for understanding the relationships between the community, the farm, and tourism activity, can inventory and analyse assets within the community holistically, beyond examining only economic-centred developmental indicators. The implementation of the CCF framework within Cuba provides an analysis that goes beyond the scope of traditional economic-centred agritourism discourse, and further, applies it to a unique sociocultural and geo-political context. In this regard, this study illustrates the usefulness of CCF in analysing the impact of tourism and provides insight to future tourism planning.

Literature review

Agroecology surfaced in the early 1900s, gained traction in the late 1920s and early 1930s, and was firmly established in the literature by the 1960s as concerns related to how landscape systems are increasingly managed. Although agroecology is not associated with any one particular method of farming, it 'has emerged as a scientific approach used to study, diagnose and propose alternative low-input management of agroecosystems' in a way that moves agricultural practices towards sustainability (Altieri, 1989, p. 37). In that regard, it often includes rural development strategies that address social and economic issues (Altieri, 1989), employs interdisciplinary approach (Gliessman, 2012), merges traditional knowledge with modern advances (Gliessman, 2012), and materialises as a social movement (Wezel et al., 2009). In this regard, agroecology has been proposed as a pro-poor growth strategy for marginalised and resource-poor farmers (Altieri, 2002), food security (Altieri, 2002; Dalgaard, Hutchings, &

Porter, 2003), natural resource/forestry conservation, and a means to address climate change (Cavaliere, 2010). Renewed interest in agroecology has followed the calls to address the sustainability issues that conventional, industrial agriculture has brought about (Gliessman, 2015).

Agroecotourism is a niche tourist activity that evolved from the discipline of agroecology; agroecotourists travel to learn about the ecological processes of agriculture. Agroecotourism has also been proposed as an economic development strategy for farmers as well as their communities in Costa Rica (Bagdonis, Hand, Larson, Sanborn, & Bruening, 2009), Belarus (Boldak, Rudenko, Pestis, & Rudenko, 2009), Italy (Privitera, 2009), Korea (Choo & Jamal, 2009), and Taiwan (Kuo, Chen, & Huang, 2006). Cavaliere (2010) defines agroecotourism as ‘a grassroots ecotourism movement where economically profitable community-based initiatives meet sustainable agriculture systems’ (p. 33). While the environmental, economic, and social benefits of agritourism are documented (Choo & Jamal, 2009; Gao, Barbieri, & Valdivia, 2014), the notion of agroecotourism differs, in that the visitors hold interest in the biodiversity practices of the farm. In their study estimating agritourists’ maximum willingness to pay for ‘organic farming activities’ in Taiwan, Kuo et al. (2006) found that ‘eco-organic tourism’ may be the optimal activity to link organic agriculture with tourism over four other hypothetical rural tourism scenarios. Based on field work in Nicaragua, Costa Rica, Australia, Peru, Thailand, Tanzania, New Zealand, and the United States, Cavaliere (2010) presents evidence that agroecotourism can ‘produce various benefits such as: job creation, education and capacity-building, community involvement, business viability, a more even distribution of revenue streams, sustainable supply chain linkages, habitat restoration, carbon sequestration, and a decrease in agrochemical use’ (p. 34). The tenants of ecotourism differ agroecotourism from traditional agritourism, in that agroecotourism incorporates ecotourism principles: it is an activity that is nature-based, focused on learning – particularly about natural resources and human interaction with the resources, is non-consumptive, ethically managed and low impact, locally oriented in its control, benefits and scale, and contributes to conservation (Fennell, 2008). Most farm tourism and agritourism definitions include ‘agricultural setting’ (i.e. implying a nature-based setting) and ‘education’; however, there are other mixed associations with concepts such as entertainment, authenticity, direct and indirect farming activities, hospitality services, outdoor or commercial recreation, and/or merely something done on a farm (e.g. a wedding or music festival) (Arroyo, Barbieri, Rozier, & Rich, 2013).

There are also a wide range of farm types that accept visitors from those who use conventional farming techniques to small-scale organic farms, working farms to petting zoos, and those who offer seasonal activities only (e.g. ‘haunted’ cormaze or harvest festivals). One contribution of this study is to present findings from research conducted in Cuba, a location where agroecology pervades because of practical reasons (Nelson, Scott, Cukier, & Galán, 2009), though Cuban tourism is still dominated by enclave ‘sun, sand, and sea’ markets.

Post revolution Cuban agriculture

The face of agriculture changed dramatically with the fall of the Soviet Union. When the dissolution began, there was nearly an 80% decrease in the real population income, a deficit that has only since recovered to about a quarter of its 1989 size (Becker, 2011; Pérez, 2011; Pujol, 2011). Particularly devastating times began in August 1990, the beginning of what is known as the ‘Special Period in a Time of Peace’, when a series of austerity measures and tight rationing were introduced in response to the economic crisis. It is further characterised by extreme scarcities in common goods and services where meeting basic daily needs became a challenge.

Food shortages were perhaps the most daunting aspect during the Special Period; monthly quotas for rationing often did not supply half of the amount of food needed. The reasons for such severe food scarcity and famine that occurred in Cuba can be explained by a couple of key factors. First, because of continued inefficiencies in agricultural production in Cuba, food imports had been vital but dissolved during this time. Second, oil imports from the Soviet Union declined approximately 90% between 1989 and 1992, triggering shortages of the fuel and petroleum products necessary for industrial agriculture (e.g. tractors, harvesters, and any trucks used for distribution of the agricultural products). Third, because animal feed was no longer imported, the production of meat, milk, and eggs was severely restricted. Fourth, and perhaps most importantly, there was a shortage in fertilisers and herbicides that caused agricultural production to drop to disastrously low levels, with particular impact on sugar cane, which was the main cash crop at the time, occupying 90% of the farmland. It is estimated that agricultural production fell 54% between 1989 and 1994 (Copeland, Jolly, & Thompson, 2011).

With industrialised agriculture no longer an option, Cubans had to transform their agricultural practices overnight, learning how to grow food without the use of fertilisers, pesticides, and machinery (Pérez, 2011). This began with personal gardens in city centres, wherever space could be found such as open lots and rooftops. Some of these small urban gardens evolved into agromercados, or free markets, to help alleviate food insecurities by allowing them to sell surplus to their local neighbourhoods (Babb, 2011), and likewise, many eventually turned into formal cooperative organic urban farms, or organipónicos, such as the one in this study. The political framework for community or cooperative arrangements for farming had previously been established (e.g. agricultural production cooperatives and cooperatives of credit and services; Alvarez, 2004). Moreover, the urban context lends itself to address the food deserts while not relying on fuel for transport and distribution. By 2006, new economic reforms under Raul Castro sought to provide greater room for cooperatives to respond to and work with the market more efficiently (Peters, 2012). In 2011, Cuba still imported an estimated 60–80% of the food needed for its

11 million people, while food imports cost around \$1.5 billion in 2010 (Peters, 2012). Nonetheless, the urban cooperative farm model that emerged in response to food insecurities has allowed for local decision-making and immediate response to community food needs in urban areas that had once faced food scarcity and remain necessary in the fight to reduce dependency on imported food.

Cuban tourism

The tourism industry in Cuba has fluctuated through global economic and social changes, as well as suffered the threat of natural disasters like hurricanes. From the 1959 revolution to the 1989 collapse of the Soviet Union, the Cuban government decried international tourism and focused on the socialist agenda, which included nationalising hotels and tourist operations within the country (Sharp-ley & Knight, 2009). Tourism was not considered a viable economic sector again until the Special Period when the government was compelled under financial pressure to once again receive tourists. From 1995 to 2012, the international tourist arrivals to Cuba grew from 742,000 to 2,815,000 international tourists, an increase of 279% over 17 years. Tourism's direct contribution to Gross Domestic Product from 2015 to 2025 is estimated to grow 4.4% per year (World Travel & Tourism, Council, 2015). Part of this growth is due to the 'warming' of US.–Cuba relations (Davis, 2015). While Cuba has sustained a strong annual influx of tourism from Canada, with over one million Canadians visiting annually (more 40% of all visitors to Cuba; Embassy of Canada to Cuba, 2013), Europe and Central and South America, the loosening of travel restrictions on Americans will no doubt have a direct impact on economic, social, and environmental conditions in Cuba.

Recently, economic reforms have spawned a wave of entrepreneurial activity among Cuban residents who are entering into the private sector, offering new products or expanding traditional ones. Niche forms of tourism are emerging, such as architectural tourism, revolution tourism, dance tourism, as well as paladars (private restaurants) and casa particulares (bed and breakfast enterprises; Babb, 2011; Peters, 2012). Specifically, the increasing agroecotourism activity is addressed in this study through the lens of the CCF.

Community capitals framework

The CCF is a system for cataloguing and monitoring community assets and resources by recognising the value of marketable and non-marketable assets (i.e. capitals) and the interdependence, interaction, and synergy between the capitals (Flora & Flora, 1993; Flora, Flora, & Gasteyer, 2015). According to the CCF, capital can be defined as a resource that individuals and/or the community possess, that can be invested in, to help increase the wealth of a community, or the different types of capitals (stock). This framework situates community resources/assets into one or more of the following categories of capital:

natural, cultural, human, social, political, financial, and built capital (Table 1). The CCF was developed from field work conducted in the US and Latin America and has since been applied to rural development (Pender, Marré, & Reeder, 2012), agriculture and food systems (Flora & Gillespie, 2009; Pierce & McKay, 2008; Sseguya, Mazur, & Masinde, 2009), and poverty within the context of lesser economically developed countries (Gutierrez-Montes, Emery, & Fernandez-Baca, 2009). Because of its holistic approach, the CCF holds great promise for analysing the full range of assets within rural and urban communities. It moves beyond the conventional economic-centred developmental indicators to a process that can leverage both marketable and non-marketable capitals to achieve greater community development. Gutierrez-Montes (2005) initially introduced the idea of ‘spiralling-up’ with regard to the community capitals based on the notion that ‘success builds on success’. Emery and Flora (2006) explained that it captures the mutually reinforcing manner of the CCF process ‘by which assets [gained in one capital area] increase the likelihood that other assets will also be gained [in other capital areas]’ (p. 22). This is perhaps best discussed as the reverse idea of Mrydal’s (1957) theory of cumulative causation that reflects the ‘spiralling-down’ period that when there is a loss of any assets, there will likely be further loss in other assets until there is some type of intervention to stop the decline (Emery & Flora, 2006).

Table 1. Community assets within the CCF.

Capital -- Description

Natural

Includes the stock of natural resources, beauty, and geography that characterise the community as a place (e.g. air quality, land, landscapes, water features, water quality, biodiversity, scenery, and natural resource protection)

Cultural

Includes the shared worldviews, values, beliefs, meanings, and behaviours that become tangible through heritage, traditions, language, rituals, dress, and food preparation. Also reflects hegemonic forces that privilege dominant groups

Human

Focuses on the knowledge, skills, and competencies of individuals who can be used to foster community development, particularly leadership. Also includes health and well-being, level of creativity, demographics of community members, and intrinsic qualities (e.g. self-esteem, self-efficacy, and respect)

Social

Refers to the connections/network between individuals and the level of trust, norms of reciprocity, and cooperation they maintain. It also reflects the common vision and goals,

acceptance of alternative views, and diverse representation within discussions made about the community

Political

Reflects the 'organization, connections, voice, and power as citizens turn shared norms and values into standards that are codified into rules, regulations, and resource distributions that are enforced' (Flora et al., 2015, p. 184). This also includes level of community organisation through the use of government and the ability of government to garner resources for the community

Financial

Refers to the monetary and financial resources that can be directly invested in other forms of capital (e.g. tax, philanthropic donations, grants, contracts, regulatory exemption, loans, and forms of investment)

Built

Includes infrastructure necessary to support community activities such as housing, transportation infrastructure, telecommunications infrastructure and hardware, utilities (e.g. water treatment, sewer, sidewalks), recreation facilities, and community buildings

Source: Adapted from Flora et al. (2015) and Flora, Emery, Fey, and Bregendahl (2005)

Methods

This qualitative study used the CCF to investigate the relationship between an organipónico and the surrounding community, particularly in regard to tourism to the farm as a moderating force. The organipónico under investigation has nearly 200 cooperative members who work on the farm. It has a diversified product offering including vegetables, ornamental and medicinal plants, and value-added food products such as vinegar and spices. It also provides workshops for local community members and technical assistance to other organic farms on the local, national, and international level. Tourist activity at the organipónico started slowly. Initial marketing was through word of mouth and by domestic tour operators promoting visits to the farm. Approximately 8000 individuals visited the farm in 2012, largely representing North America, Europe, and Latin America markets-of-origin. Roughly 7400 of the visitors made their arrangements through tour operators or travel agents. In 2012, the farm hosted 35 university groups with some staying up to 20 days to do research on the farm.

The primary researcher established a relationship with the farm through a tour operator working in Cuba and subsequently visited the farm several times prior to data collection; for other members of the research team, it was the first visit. The research team consisted of seven faculty members and six graduate students. Data were collected through semi-structured interviews conducted during a site visit in July 2013. Questions were translated into Spanish and provided to the key farm contact prior to the visit who also helped with purposive sampling of the participants. Participants needed to be workers at the

farm as well as residents of the local community, as well as gender, age, and position on the farm to ensure that many distinct perspectives were captured (Patton, 1987). In total, five individuals were interviewed (Table 2) and data were also collected through participant observations during a guided tour of the farm and informal discussion with farm workers. The data were collected in the form of field notes, sketches, photographs, and video by members of the research team.

Interviews lasted between 30 and 60 minutes, and informants received a monetary incentive for their time. Three of the interviews were conducted by a team of 2 interviewers and 1 translator, and 2 additional interviews were conducted in English without the presence of a translator, for a total of 10 interviewers and 2 translators involved in the interview process. In order to increase inter-rater reliability and dependability of the data, a training process for the interviewers and the data coders was used that included practice interviews and group discussion of the interview process. An interview guide was also used to ensure accuracy across interview teams, to ensure that participants answered a very similar set of questions, allowing for comparison between interviews during the analysis stage (Bernard & Ryan, 2010). The interviews were not recorded due to privacy and security reasons; however, interviewers were granted permission to take written notes. A debriefing by each of the interviewer teams was immediately audio-recorded following each interview; the translator also took an active role in the debriefings. The audio tape of the debriefing was transcribed; these, along with hand-written notes from each research team member and a formal report submitted by each team about the interview, served as data sources.

Interview questions focused on the relationships between the farm and community, the farm and tourism, and tourism and community. Questions for the interviews were grouped according to themes: the nature of the farm's relationship with the surrounding community, a profile of the tourists who visit the farm, the tourists' motivations and interests for visiting, how tourists learn of the farm, activities, and educational lessons provided at the farm, what positive and negative impacts tourists have on the farm or the community, and if the recent changes in private enterprise in Cuba affected the farm or tourism on the farm. Moreover, during the interview, a visual aide and explanation of the CCF model was shared with informants (Kline & Oliver, 2015) so that they could comment directly on the impacts to various capitals (Figure 1).

The qualitative data were analysed by research team members through independent analysis, followed by several meetings to discuss agreement in interpretation of findings and organisation of the data. The first round of open coding produced 11 themes agreed upon by the research team. A second round of coding was conducted with pre-determined codes –the community capitals identified in the CCF. Because the CCF suggests that, conceptually, certain community assets/resources may be categorised under multiple domains of capital, simultaneous coding was employed to address the complexity of examining the

capitals. Simultaneous coding is a technique that considers the ‘confounding property of category construction in qualitative inquiry’ because data ‘cannot always be precisely and discretely bounded’ (Saldana, 2009, p. 6). Finally, it should be noted that while dependability and heightened confirmability were sought through good research design, use of an existing conceptual framework, and built in areas for triangulation (e.g. multiple methods and independent analysis of data), caution should be taken in consideration of the findings. The analyses were based on the debriefings from the interviews, which created an added layer of researcher interpretation; however, this methodological issue was kept in mind through the process and in the formation of the findings. Moreover, because of the intercultural and multilingual context within which this study took place, caution should be taken with regard to interpretation that was ‘lost in translation’ (see Goldstein, 1995).

Table 2. Description of informants.

Informant

Number -- Role at farm

1. Woman: actively involved in day-to-day operations on the farm; had served as head cook preparing meals for the workers for approximately 10 years. She had also worked in the fields and in sales for the farm. Before coming to the farm, she was an engineer in one of the national-level ministries
2. Man: an agronomist in training, and the original founder of the cooperative farm 16 years ago. He is involved in day-to-day operations and administration of the farm, including long-term Planning
3. Man: had come to work at farm seven years ago because of his expertise in a relevant field of science. He had worked in various ministries for the government prior to coming to the farm
4. Woman: has been with the farm 14 years and has had many jobs on the farm, including being involved in community outreach and a tour guide for groups who visit the farm. She was the tour guide for the research team
5. Woman: currently does accounting and payroll office for farm; has also been cross-trained to work in other positions

Figure 1. Visual aide of the community capitals used in the interviews.

Seven Types of Community Resources

Every community has these seven types of resources in varying quantity and quality. They are impacted by one another as well as by external influences.

Natural – biodiversity, landscapes, water quality
Financial – income, jobs, community wealth, security
Cultural – traditions, language, rituals, dress, food preparation
Human – skills, knowledge, self-esteem, health, efficacy
Social – leadership, groups, networks, trust, reciprocity
Political – inclusion, voice, power
Built – water & sewer, sidewalks, electricity, community buildings

Findings

Natural capital

The farm builds natural capital for the community in multiple ways: it serves as an oasis of green space within the neighbourhood that includes soviet style apartment complexes (Informant 4); produce grown at the farm goes directly to the community (Informants 1, 2, 3, 4, and 5); and the farm serves as a living lab to teach and demonstrate how the ecosystem and permaculture, or the intentional practice and design of sustainable agriculture systems that works harmoniously with the nature (Holmgren, 2011), work to employees, community members, student interns, children, and tourists (Informants 1, 3, and 4). Prior to becoming a farm, the land was vacant, and overrun with weeds and trash (Informants 2 and 4; farm tour notes). Situated within a suburban neighbourhood, the farm is surrounded by mid-rise concrete buildings representative of Soviet Union era architecture.

The farm has enhanced biodiversity that may not otherwise exist if the land was used for housing or commercial development (Informant 2). Informants emphasised the farming methods and agroecological practices implemented. For example, interviewees mentioned seed-saving techniques, solar panels, humus beds, rain barrels, irrigation systems, integrated pest management, natural fencing, waste management, and chemical-free operations (Informants 1, 2, 3, and 5; farm tour notes). Farm operations also enhanced the area's natural capital by improving soil quality and conserving and water (Informants 1, 2, and 3).

Cultural capital

The co-op members' dedication to the farm's goals manifests in the overall tone, or culture, that influences their daily actions. The organipónico's culture values cooperative members and the community, engendering a constant drive to care for each other (Informants 1, 4, and 5). For example, the members pool money for parties and events, and socialise regularly as a community (Informants 1 and 4). While the culture influences those who spend time on the farm, the farm also influences the community's culture by emphasising the notion that agriculture has a place in urban and suburban contexts. All informants felt pride in the

mission and accomplishments of the farm and were gratified to be a part of a positive force in their community. Informants 1 and 3 credited the organipónico with increasing a culture of pride in the community, through its elevation of the community's status.

Hosting Cuban school groups, who learn about and experience nature on the farm, illustrates the farm's focus on education (Informant 4). Young people learn about agriculture/agroecological practices at the farm and get excited about potential careers in agriculture. Food preparation is another part of the traditional culture that the organipónico is striving to preserve and pass on to the younger generations (Informants 2 and 4; farm tour notes). Informant 3 commented on how the farm inspires a strong work ethic in the younger generation of interns, and visiting and full-time workers. Members also value their ability to teach farming skills and traditions to visiting scholars and farmers from within Cuba and from around the world. As opposed to keeping their knowledge proprietary, they have developed a culture of education and the dissemination of knowledge (Informant 2; farm tour notes). This is particularly important for the farm as they are continuously trying new practices to improve their own proficiency in sustainable farming.

Human capital

Skill development, knowledge, and education are at the core of human capital development at the organipónico. When employees come to the farm, they are trained in agroecological practices –some of which are specific to the farm setting, but can also be transferred to their personal lives (Informants 1 and 2). Most employees receive cross-training in a variety of positions as a way to develop them professionally (Informant 5). Farm workers also visit local schools (or school groups visit them) to educate children about agriculture and get them excited about growing food (Informants 1 and 4), thereby transferring knowledge from older adults to younger people and passing on the traditions of sustainable agriculture. In this regard, they have developed an informal mentorship programme (Informant 1). This has helped to reduce the number of young people leaving the community to work elsewhere. The farm also fosters employees' self-esteem and sense of purpose (Informants 1, 3, and 4). This increased self-esteem is also related to bonding and bridging social capital on the farm through the family-like community they create, and the cultural pride that results from being recognised as leaders in their field.

Social capital

Social capital is at the heart of the success of the organipónico because the organisation exists for the local people (Informants 1, 2, 3, 4, and 5). Three themes emerged indicating increasing social capital among the community because of the farm. First, many residents of the surrounding community have become part of 'farm family' joining the cooperative, thereby increasing and bonding social capital. The informants cited a sense of belonging and reciprocity with

the farm and developing close relationships on the farm (Informants 1, 3, and 4). There is low turnover because employees enjoy their work, they do not hurry to leave when their workday ends, and they work towards the common goal of creating a quality product in which they can take pride (Informant 4). Second, the ties between employees and the community are strengthened through parties and other social gatherings which the employees are able to host by pooling money. One informant noted, working at the farm is not just a job, but a place where connections can be formed and strengthened (Informant 3). Third, the farm was established in response to a community need –unavailability of fresh food. Members receive produce for free or reduced prices and the remaining food is supplied to community vendors who sell to surrounding communities, local schools, hospitals, and other businesses (farm tour notes).

Political capital

Data showed that employees feel empowered because of their ability to contribute to decision-making on the farm. At monthly meetings, their voices are heard through open forums and they can vote on decisions impacting the farm –any major decision is submitted to the assembly for everyone to vote. They can also share their concerns and suggest change (Informants 1, 3, and 4). Employees have become comfortable expressing and proposing their ideas freely, knowing that they will be discussed and possibly implemented (Informant 3). Employees also have the opportunity to change jobs on the farms (e.g. between cooking, field work, sales positions) or move upward by indicating to the group that they would like to do another job (Informants 1 and 4). Comparatively, this gives employees more authority over their lives and careers because no government permission is needed to change roles or advance, which is dissimilar to other industries.

Older adults and women are particularly empowered through work on the farm (Informant 4). Older adults bring certain skills and knowledge making them valuable workers for the farm and giving them more purpose in life. Likewise, women are given equal opportunity and voice, where the farm has even implemented policies to make sure that workload is balanced between women and men. This is unique within the context of Cuba and other Latin American countries where traditional gender ideology creates unequal power dynamics. A study by the Center for Democracy in the Americas (2013) found that in the twenty-first century Cuba, gender equality still falls short in the workplace, in the home, and in access to power. Overall, the importance placed on treatment of the employees of the farm coupled with the power they are given to influence decisions on the farm translates into increased political capital on the individual levels for the workers.

Financial capital

Financial capital was frequently mentioned first when informants were asked

about the impact of the farm on the local community. The organipónico's main contribution to the tenets of financial capital is in job creation and bringing new money into the community. The farm started with only seven cooperative members, but now has almost 200 workers –42 of whom are women (Informants 1 and 2). Positions on the farm often pay better than other types of work. For example, doctors, engineers, and former government ministers have left jobs to work on the farm (Informant 1). In addition to better pay, the farm provides a sense of economic security where the employees know that they will always enjoy benefits –including a pay cheque and two meals per day –whether the harvest is good or not (Informants 1 and 2).

The farm reflects an emerging form of small business in the Cuban economy that has the ability to retain more money earned from selling its products rather than relinquishing most of it to the state. Some of the recently implemented economic and agricultural policies have made the farm an attractive employer because employees' quality of life is the focus. While the farm sells most of its produce directly to the local residents, they also sell 5–6% to paladares, restaurants, and hotels outside the community, creating a small ripple effect (Informant 1). The farm has attempted to further expand distribution, but lack of infrastructure has limited the organipónico to supplying nearby businesses (Informant 1).

Built capital

Infrastructure development within the farm is one of the ways in which the farm improved the built capital of the community –bee houses, drying racks, irrigation systems, and insect 'laboratories' are all part of the farm's built environment that support agroecological practices. These built components are also points of interest on farm tours. The farm has also acted as a focal point of the community as it hosts educational workshops for residents. The increased presence of both community and tourist activities has necessitated construction of seating, shelters, eating areas, additional bathrooms, and access to lighting and water which also benefit employees. Revenue from tourism helps to expand agricultural infrastructure, such as the seed house, the solar panels, the humus beds, and the production facility (Informants 1 and 4). Planning for future agroecotourism activity includes a seed breeding facility, larger shelters for classroom space, and possible overnight accommodations (Informant 4).

Agroecotourism impacts

Tourism is supporting the organipónico's original purpose to alleviate food insecurity beyond only acting as a tool for economic diversification, but by influencing other community capitals. The capitals most impacted by tourism were the human, social, political, and financial capitals, which interplayed strongly with each other and caused a ripple effect in other capitals. For example, tourism

builds on the financial capital of the farm as an additional revenue stream (e.g. tours, souvenir sales, lunch fees, donations, jobs) which allowed the farm to increase its built capital (e.g. agricultural infrastructure). Moreover, education regarding agroecological practices is the cornerstone for the farm wherein they teach visitors and local residents about the natural environment. This increases confidence and self-esteem of workers because of the demand for their expertise and expands their awareness of global culture and current events not easily accessed in Cuba (human capital). Increased pride and sense of community developed around the farm because of the interest demonstrated by tourists, contributing to cultural capital. Cooperative members have a greater voice because of their tourist audiences that allows them to expand the reach of the knowledge transfer of agroecological practices and the 'real narrative' of Cuban life not confounded by media (political capital). Through tourism, the farm has been able to extend and strengthen social networks (social capital). Table 3 summarises key impacts of tourism to the farm relevant to each community capital.

Table 3. Summary of key impacts of tourism to the farm.

Community capitals

N C H S P F B

Increased income to farm to expand agricultural operations: materials, equipment, Infrastructure
+ +
Expanding infrastructure for tourists: shelters, tables, walkways, bathrooms
+ +
Agroeco-education offered to community, tourists, interns, students SP
+
Increase the value of the natural resources as part of the attraction for visitors
+
The farm (bolstered by tourism income) preserves natural areas in an otherwise suburban setting SP
+
Some visitors do not dispose of foot protection in trash cans
-(minus)
Members are proud of what they are doing at the farm
+ + +
Members share pride in being able to do this in Cuba
+
The farm attracts experts from around the world as a model in urban organic farming (which enhances respect and power)
+ +
The farm represents the community and the people who live in it; a feeling of unity

comes from expressing this to tourists

+ +

Tourism brings new people with new ideas to the farm

+ +

Building social capital through growing exposure to other networks (including tourist networks and networks with other coops and individuals/organisations in the local community) SP

+ +

Tourism offers a powerful vehicle for telling visitors about 'real' Cubans

+ + +

Expansion of product offerings (because of visitors to the farm –now selling lunches, souvenirs) SP

+

New positions on the farm as a result of more revenue SP

+ +

The type of tourist is an educational tourist so presumably the interactions with the community are more respectful (than the sand, sex, sun, sea tourist) SP

+

Notes: +, positive impact; –, negative impact; SP indicates a spillover impact to the community as a result of tourism to the farm; N, natural; C, cultural; H, human; S, social; P, political; F, financial; B, built

The findings demonstrate that tourism is creating a 'spiralling-up' effect in

the community capitals (Emery & Flora, 2006; Gutierrez-Montes, 2005). As an example related to natural capital, farm cooperative members expressed a strong commitment to preserving the natural landscapes of the farm because of increasing recognition of the value of natural resources as part of what makes the farm a unique tourist attraction (Informant 2). The types of tourists currently visiting the farm are interested in learning about agroecological practices as part of their profession or their hobby; scientists from other countries have been sent to learn practices from the farm (Informants 2 and 4).

Tourism is also spiralling up human capital because many tourists are coming to the farm to learn about organic practices so the farm workers have to transfer their knowledge in a 'train the trainer situation' (Informants 3 and 4). Since most tourists are not Cuban, the human capital effect is significantly broader than the immediate community. This not only increases confidence and self-esteem for the trainers because of the demand for their expertise, but also serves to increase their communication skills. Personal communication skills, while important in any community, may have added importance for Cubans where the freedom to openly communicate is not always encouraged. Interacting with foreign visitors serves to increase international awareness, which is an important element of human capital, but is not easy in Cuba because of citizens' limited access to information external to the central government. Tourism to the farm also

influences bridging social capital, as the social network of the farm has expanded tremendously through the exposure the farm gains with visitors. The connection with the surrounding community adds to the 'esprit de corp' of the farm's success. Bonding social capital is deepened, in that community members are unified to give visitors a good experience as an important farm goal.

Political capital of farm members increases because of tourism to the farm. Employees are using the opportunity of hosting tourists on the farm to challenge stereotypes and preconceived ideas about the Cuban people; the 'real' Cuban narrative was an important theme during interviews. A sense of empowerment ensued from their ability to talk directly to the tourists, which in their perspective, allows the tourists to see them outside of how the media portrays them. Informants suggested that discussing Cuban culture was just as important as talking about the actual agricultural practices of the farm (Informants 1 and 4). In that regard, they often have visitors with very strong political questions, which they welcome because they can give them a more localised response. The farm workers are in an interesting position to provide their own opinion because they do not work for the state, allowing them more freedom of expression (Informant 4). The idea of this Cuban narrative was interwoven with the pride and cultural capital that tourism is building for the farm. The farm is bringing status and recognition to the community on a global scale, which illustrates spiralling-up of the community's political capital.

Tours of the farm have created positive economic impact through the sale of souvenirs and lunch (Informants 1, 2, 3, and 4). Souvenirs such as jewellery made from sunflower seeds, coffee beans, and other 'farm materials' are sold on the farm by community residents. A discussion of future initiatives included visitors staying in accommodations on the farm (Informants 2 and 4). Tourists who visit during the summer, when most crops are being grown rather than harvested, give the farm the opportunity to supplement its income during the low-selling and tourist season (Informant 4). Additionally, tourism augments financial capital through donations. The farm, which has become the face of the local community, has begun accepting material donations from visitors such as school and work supplies, and farm equipment (Informant 1).

Extending beyond traditional agritourism, the findings of this study demonstrate the complementary nature of agroecotourism with the core tenets of ecotourism. Likewise, the application of the CCF was shown to be an effective way to examine the adherence of agroecotourism to ecotourism principles as illustrated in the following. The tourism activities on the farm were nature-based (natural capital) and focused on learning (human capital) about the environment and natural resources management. The activities were non-consumptive, non-invasive, and ethically managed activities (thereby minimally affecting natural capital) and, further, extended tourists' knowledge on sustainable practices (human capital). Agroecotourism on the farm benefited the local community through the added economic impact, increased pride/ self-esteem, and

creating the opportunity to have their 'voice' heard (financial, human, and political capital), was controlled by the local community which is an anomaly within the socialist society, and through tourism, was continuing to gain the means to expand the farm and its impact to the community (political and built capital).

Conclusion

This paper contributes to the CCF tourism planning literature by applying the framework to a new context, expanding on the limited literature on agroecotourism development, and discussing unique possibilities for tourism in a socialist nation. The paper demonstrates the CCF's utility in scaffolding sustainability goals –when all of the capitals are nurtured, a spiralling-up effect occurs in the community through tourism development (Emery & Flora, 2006). This paper also explores the potential of agroecotourism as an appropriate niche market that can support positive impacts to local communities through their focus on education, sustainability, and community development. As Cavaliere (2010) notes, 'agroecotourism, as an example is an area of tourism that demands more in-depth investigation as it links several methods of improving health and livelihoods' (p. 34). In this regard, this paper provides further evidence of the potential linkage between agroecology and sustainable tourism development goals.

With continued political reform at a national level in Cuba, policy change is beginning to be felt at the individual level as it pertains to small business development and entrepreneurship in tourism. As part of the 2010 economic reforms set in motion by Raul Castro, self-employment is beginning to be legalised which would allow people to enter into the private business sector. With the potential opportunities opening up through tourism, there is a need to consider how tourism may further impact the farm. What if the visitors change? How will the impacts change with different forms of development? Will tourism become more important than agriculture given its economic impact? Finally, will tourism continue to foster the spiralling-up of all the capitals or could negative impacts cause a spiralling-down?

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