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Cacao Together: A Model for True Sustainability in the Chocolate Industry

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Cacao Together: A Model for True Sustainability in the Chocolate
Industry

CLC. Social Venture Plan.

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SIT Graduate Institute

A capstone paper submitted in partial fulfillment of the requirements for a
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Abstract

This Course Linked Capstone provides a critical analysis of the concept of sustainable development and then uses this analysis to create a social venture plan for a non-profit called Cacao Together. This capstone project will identify challenges in the sustainable use of cacao by first critiquing the mainstream sustainable development initiatives of certification schemes and corporate sustainability programs. It then offers an alternate framework through the 5 Capital Livelihood assessment tool which when applied, shows the gaps in cacao sustainability initiatives generally. I then propose a social venture that will addresses the needs of many parts of the chocolate supply chain in particular the need to create livelihoods for farmers and more collaborative relationships among various actors in the supply chain. This capstone offers an innovative solution to the challenges facing the global chocolate industry and the farmers who grow cacao in the developing world.

Introduction

How can a global food industry like the chocolate industry move away from its current unsustainable practices to more sustainable ones? In this paper I will first critique and redefine sustainability and sustainable development in Part 1. I will then assess the sustainability initiatives and activities taking place in the global chocolate industry (Part 2). Finally I will present a social venture plan for a new kind of non-profit education and manufacturing entity that will be able to lead the industry towards a more sustainable future in Part 3.

Part 1: The Problem with “Sustainability” and “Sustainable Development”

If we were to believe the corporate social responsibility hype of the big chocolate companies, we would think that the problems in the cacao supply chain such as chronic poverty, child labor, soil degradation and deforestation could be fixed through technological innovation and farmer training. They would have us believe that farmers need only to increase productivity on their farms, and if armed with the right knowledge and tools, they could solve all of their problems. But poverty (and consequences of poverty, such as environmental degradation) has many dimensions and prescribing a blanket fix while ignoring everything else is folly. An analysis of agriculture from the International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD) notes that the role of agriculture is “multifunctional”, wherein it produces things such as environmental services, landscape amenities and cultural heritages, and not only commodities (Abate et al, 2009). The chocolate industry has yet to incorporate these other aspects of agriculture into its sustainability initiatives. The multifunctional view of agriculture should be more common in the chocolate industry if its

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goal is to increase the well being of cacao-growing agricultural communities. I will argue in this paper that this hasn't happened for 3 reasons: one, the definition of sustainability is ambiguous, two, it has been co-opted by the industry to mean more growth and three, claims of sustainability are often unverified. In contrast I will offer the livelihoods framework as a model to expand the concept of sustainability which I will then use as the foundation for my own social venture plan.

Sustainability, what is it?

Addressing the problem of sustainable development requires a deep understanding of the meaning of sustainability. The problem, however, is that it is unclear exactly what the term "sustainability" means. Sustainable development has its origins in a seminal report by the World Commission on Environment and Development authored by Gro Harlem Brundtland in which she defines sustainable development as: "Meet(ing) the needs and aspirations of the present without compromising the ability to meet those of the future" (Brundtland, 1987, p.xii). Peter Marcuse points out that when looking at this definition, the goal is "meeting the needs" and the remainder of the sentence, that is, the sustainability part, talks about the constraints needed to make that happen (Marcuse, 1998). The confusion begins with the word, "sustainability" because in a literal sense to "sustain something" means to keep things the way they are. If taken as a goal, which it often is, sustainability could be misinterpreted as meaning taking measures to maintain the status quo (Marcuse, 1998). This is certainly not what Brundtland had in mind when she defined the term.

The various misinterpretations of Brundtland's definition of sustainable development have created this ambiguity. Brundtland went on to say that sustainable development is about "changing the quality of growth, meeting essential needs, merging environment and economics in decision making" (WCED, 1987, p. 49). Hopwood and colleagues

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make the point that Brundtland's definition of sustainability is ambiguous enough that it could be taken to mean that growth was an important element of sustainable development, which they say, has "allow(ed) business and governments to be in favour of sustainability without any fundamental challenge to their present course" (Hopwood, et al. pg. 40,). Mainstream interpretations of sustainable development have adopted the idea of growth as a driver to reducing poverty because it is assumed that all people benefit when the economy grows (Wackernagel, Rees, 1998). However, Patel points out that the channels of distribution are such that they enable some people to benefit more than others, and development based on growth actually creates more inequalities (Patel, 2013).

There is also confusion as to what extent sustainable development should address social or ecological concerns (Lele, 1991). As a general rule, sustainable development concerns itself with issues involving people, planet and profit, but to what extent is highly subjective. Hopwood et al (2005) attempt to clarify the various interpretations of sustainable development frameworks by mapping them out on a Y axes that has, on the one side, concerns about socio-economic well-being or equity, and on the other side ecological concerns. Overlaid on this map are views regarding the nature of changes necessary in the economic structures, that is, views on the nature of "profit". As you go up the axis, you move from the "status quo," those least concerned with either equity or the environment while operating in the current economic system, to "transformational," with proponents recommending an overturn of the economic and power structures that create inequity and environmental degradation (Hopwood et al, 2005). In the middle are the "reformers" who look to market reform and government regulation as ways to address mounting environmental and social problems. Sustainable development frameworks can fall anywhere within this range of views with mainstream sustainable

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development falling largely into the categories of “status quo” (Hopwood et al, 2005). One element of status quo is that development (initiatives) are made through top down style management and decision making (Hopwood et al, 2005) but if people in positions of power determine the course action without a critique of the system in which these decisions happen, talk about sustainability is trite and misleading.

Mainstream Sustainability Initiatives In the Chocolate Industry: a review of the literature.

Big chocolate manufacturers fear that the demand for chocolate will soon outstrip the supply and their sustainability initiatives have been set up to address these concerns. Some of the reasons for the dwindling supplies include the migration of West African farmers into cities to find more lucrative work and the trend for farmers to switch to less labor intensive, but possibly more destructive, crops such as rubber or palm oil (Wegner, 2012). As the amount of arable land decreases, it also becomes necessary to look for ways to increase production on existing farms, whether through pesticides, better farming techniques or other methods (Franzen & Mulder 2007). One way that manufacturers are tackling the productivity issue is through modernization methods and green initiatives that include the use of hybrids, and inputs such as pesticides, and herbicides (Athreya, 2011). These techniques will certainly increase yields, but at the expense of other variables such as overall income, food security, the environment and cacao quality (Franzen & Mulder, 2007).

Companies are increasingly under pressure to meet consumer demands for cacao that is grown in a responsible manner (Wegner, 2012). The negative attention cacao has received regarding exploitative practices and child trafficking has resulted in chocolate manufacturers responding with sustainability initiatives (Wegner, 2012). Mars, for example, has announced it will certify their cacao using Rainforest Alliance and UTZ

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certification programs by the year 2020 (Wegner, 2012) and the Netherlands has declared that all of the chocolate sold in their country must be sustainable by the year 2025 (Chocoa website, 2018). Sustainable certification schemes such as Organic, Fair Trade and rain forest preservation (UTZ) are some of the ways that corporations are addressing the need for more socially responsible cacao (Wegner, 2012). While these do provide some benefits to farmers and their communities, it is difficult to make the case that they are indeed promoting sustainability, especially as their standards are diluted to meet the needs of large multi-national corporations (Melo & Hollander, 2010). Smaller specialty chocolate companies make their own claims of sustainability based on the type of relationship they have with their cacao bean producers but whether these claims hold up is also debatable (Martin, 2017). Sustainability has become the new catchword that companies are using to improve their image and since it has been left up to the industry to define, the word has come to mean very little. Instead we need to look at a different kind of model, a livelihood model, as a better model by which to judge sustainability (Chambers and Conway, 1994).

Moving away from the mainstream: Livelihood Models of Sustainable Development

A livelihood model is based on the ideas of capability, equity and sustainability which are linked together and support each other (Chambers and Conway, 1994). Chambers and Conway define the livelihood model as comprising “the capabilities, assets, and activities required for a means of living: a livelihood is sustainable which can cope with and recover from stress and shocks, maintain and enhance its capabilities and assets, and provide sustainable livelihoods for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the short and long term” (Chambers & Conway, p. 6, 1994). This definition points to assets and

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capabilities and the building of other livelihoods to define standards for sustainability rather than indicators because the best indicators are not always obvious. (Chambers & Conway, 1994).

The **5 Capitals** tool for assessment, created by the Tropical Agricultural Research and Higher Education Centre (CATIE) an international institute for biological conservation and agricultural development, shows how an asset based approach can impact livelihoods through *value chain development* (VCD) interventions. VCD interventions strengthen the relation between smallholders and other value chain actors such as input providers, buyers and processors so that the smallholder make significant livelihood improvements (Donovan & Stoian, 2012). The logic behind VCD's is that by intentionally building win-win relationships between two or more value chain actors through improved relations and interventions such as technical, business or financial services, smallholders will benefit through the creation of added value and more enduring business relationships (Donovan & Stoian, 2012). The idea is that these strengthened relationships build assets at the level of smallholder households and smallholder-linked enterprises through the following 5 Capitals: Human capital, Social capital, Natural capital, Physical capital and Financial capital (see Table 1). The assets

	Household assets (smallholders)	Business assets (smallholder-linked enterprise)
Natural capital	Stock of environmentally provided assets, including soil health, forest cover and diversity, minerals, water, stock of plants or animals	Only applies if the enterprise has its own land for sourcing its raw materials
Human capital	Capacities and skills, formal education, nutritional and health status	Business management and technical capacities and skills
Social capital	Rules, norms, obligations, reciprocity and trust embedded in social relations, structures or arrangements that enable those who share it to achieve goals they could not achieve individually	
Physical capital	Tools, equipment, machinery, buildings, other built or productive resources	
Financial capital	Cash, savings, equity, credit and other financial resources	

Table 1) The 5 Capitals in relation to asset types. (Donovan & Stoian, 2012, p. 17) 10

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can be owned individually and in households or collectively in communities or societies. These assets can be seen as stocks and flows that, with the right interventions, can create positive feedback loops. An example of a positive feedback loop is building the capacity of a producer organization (human capital) through technical interventions which helps increase diversity on the farm (natural capital) which in turn increases financial capital through increasing profits from the sale of surplus crops. Feedback loops are critical in determining the general well being of a household in that they lessen the impact of external shocks and changes in market and political environments (Donovan & Stoian, 2012). Underpinning the 5 Capitals is the belief that the greater a household's access to livelihood assets, such as human, social, natural, physical and financial capitals, the higher its well-being and resilience (Donovan & Stoian, 2012).

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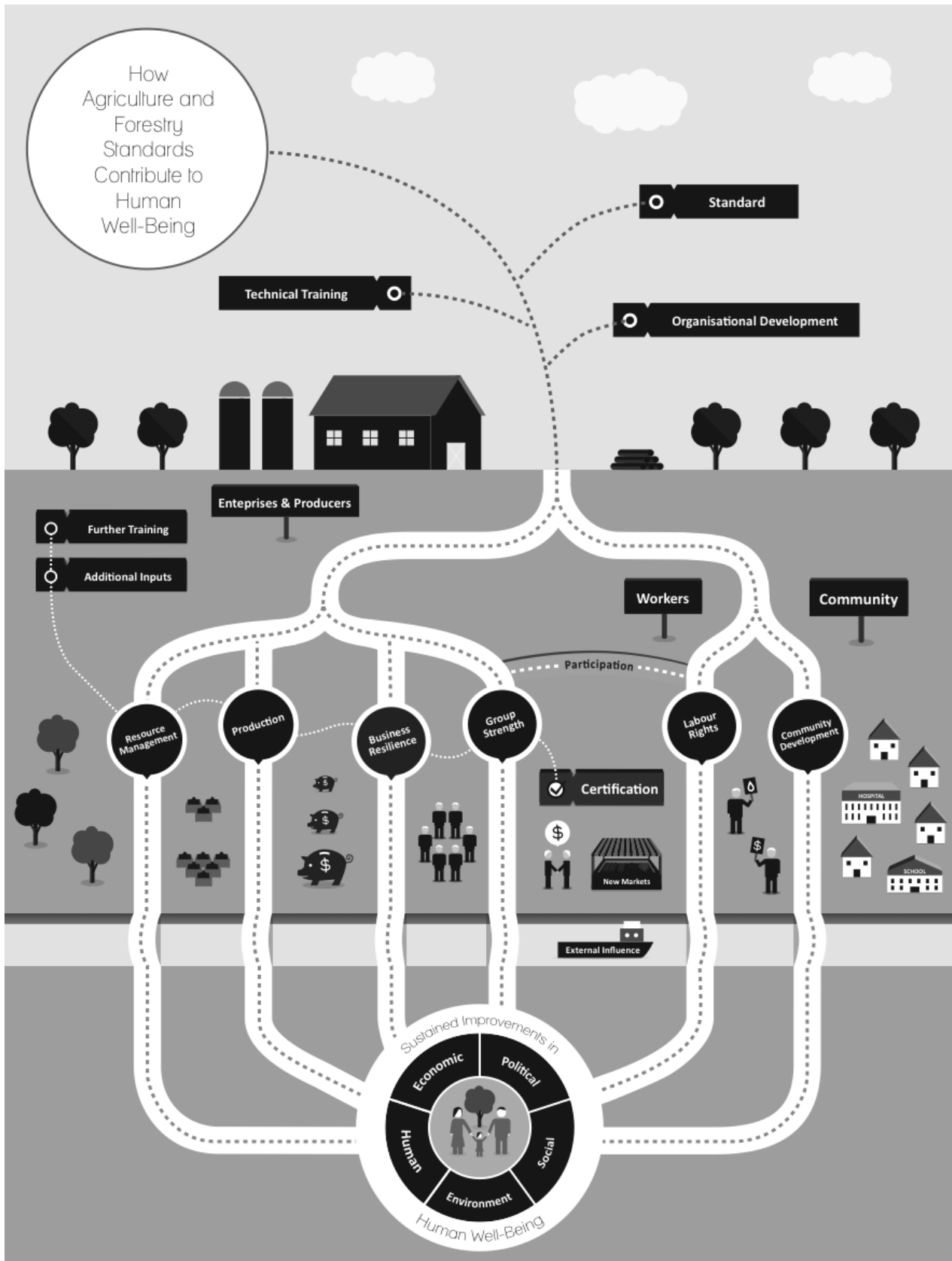


Figure 1) ISEAL's conceptual framework in graphic form, showing how standard systems work at the primary production level to improve human well-being (citation needed)

Part 2: Assessing Sustainable Development Initiatives in the Chocolate Industry

Using the concepts and frameworks introduced in Part 1, I will now assess a number of key sustainable development initiatives currently taking place around the world, in organizations large and small. How can one contrast the three main types of player in the chocolate industry? For my assessment, I have grouped together the certification organizations, who provide standardized sustainability benchmarks for their corporate clients, with the corporate sustainability programs which are operated by the mega-corporations that produce most of the world's chocolate supply. They are similar in scale and mission, and there is a fair amount of overlap between their activities as partners. In contrast, the smaller craft/speciality chocolate makers often have their own sustainability standards, and are more nimble than the bigger players. Despite their differences, all these players can be compared using a common set of indicators, which is where I will begin this section.

Indicators used in Certification Schemes and Corporate Sustainability Programs

Certification schemes use common frameworks by which they develop their standards for sustainability. Both UTZ and Fair-trade International, the two main certifiers for cacao sustainability, use the framework of the ISEAL Alliance to their define sustainability indicators and pathways to achieve them. While different certification schemes have their own specific sustainability goals, they are united in addressing social, human rights and environmental sustainability (Komives, Maireles, 2013). The ISEAL framework involves categorizing sustainability, or elements for well being into 5 pillars: Economic, Political, Social, Environmental, and Human and the way to achieve

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these goals is through the certification standards and their performance requirements such as good agricultural practices for farmers, or wage and contract requirements for hired labour (Komives & Maireles, 2013). Using a system of monitoring and evaluating, certifications schemes in the alliance are expected to track outcomes in order to learn from and improve on their impacts. It's expected that the changes made through standards will trickle down via pathways and positively impact farmers, families and workers (Komives & Maireles, 2013). Indicators exist for standards and certifiers to track and capture the change in conditions on farms, in enterprises, farmer groups and households and further fall into 3 categories: reach, outcomes and household level impacts (Komives & Maireles, 2013). Bray and Nielson (2017) argue that since the ISEAL pathways are based on a livelihood framework where improvements in economic, political, social, environmental and human dimensions are expected, there is a relationship that links certification schemes with livelihood improvements. Therefore, it is valid to view these certification schemes against a livelihood model such as the 5capitals in order to verify their claims of improved livelihoods. Below is a brief overview of their approaches to improved livelihoods and methods used to assess.

Figure 1 contains a visual representation created by ISEAL showing the pathways to building better livelihoods for smallholder farmers. At the top are the outputs that result from certification standards which flow into their expected outcomes, such as better management of resources or more stable revenues. At the very bottom of the graphic are the impacts that the outcomes have on the livelihood and well being of smallholder farmers and their communities.

A) Rainforest Alliance

With its focus on the environment, producers under the Rainforest Alliance certification scheme must meet the Sustainable Agriculture Network (SAN) criteria which

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based on the following sustainable agriculture standard principles:

Principle 1: Effective Planning and Management which includes farm productivity and profitability.

Principle 2: Biodiversity Conservation which includes preventing deforestation and protecting natural ecosystems.

Principle 3: Natural Resource Conservation, which includes the health of soil and water, by reducing pesticides and fossil fuel use, as well as non GMO products.

Principle 4: Improved Livelihoods and Human Wellbeing which includes protecting human and labor rights, such as respecting freedom of association, and an effort to provide a global living wage.

B) UTZ

UTZ is the largest certifier in the world and contains 760,000 farmers in its program. It has two sets of guidelines: The Code of Conduct and the Chain of Custody. The Code of Conduct covers the growing and harvesting process with an emphasis on farm management practices, and farming practices that includes the use of proper inputs(fertilizers, planting material) and soil management. Social and living conditions covered under the code include no child labor, safe and healthy working conditions and a move towards a living wage. The second guideline is the “Chain of Custody” which traces products from the moment they leave the farm to when they arrive on the shelves. Indicators specifically for cacao includes use of shade trees and correct drying and fermentation (increased quality). UTZ and Rainforest Alliance merged in January 2018 but their standards haven’t been published yet. The website says that they will be “combining the best of both standards” (Rainforest Alliance/UTZ website, 2018).

C) USDA Organic

Expected benefits for growers under USDA certified include premiums, market

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access, financial access, soil and water health. Organic operations must prove that they are protecting natural resources, conserving biodiversity, and using approved substances. Requirements include use of approved inputs, monitoring practices, soil fertility, organic seed and plant stock must be organic, use of crop rotation, and pest, weed, disease management practices.

D) Fair Trade Standards

Fair Trade International (FLO) is meant to be an alternative trade mechanism backed up by a charter whose core principles include market access for marginalized producers, sustainable and equitable trading relationships, capacity building, and empowerment, consumer awareness raising and advocacy. Standards require members to be small-scale producers. Indicators are based on social, economic and environmental pillars with an emphasis on economic development. Social indicators include access to marketing, democratic decision-making by members and labor rights for hired labourers. Economic development include fair trade minimum price and/or fair trade premium and pre-financing if needed. Environmental development includes environmentally sound agricultural practices such as minimum and safe use of agrochemicals, waste management, soil fertility maintenance, and no GMO products. There are 189 farmer organizations that have a certificate to produce and sell Fair-trade cacao, or 226,579 small-scale farmers (FLO website, 2018).

Corporate Sustainability Standards

Corporate sustainability programs are separate from the sustainability programs of certification schemes although some chocolate manufacturers participate in both.

A) CocoaAction: CocoaAction is made up of industry members representing more than 80 percent of the global cocoa market (CocoAction, 2018). Its mission is to "catalyze public-private action to accelerate cocoa sustainability" (CocoAction website,

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2018). CocoaAction sees 5 main challenges in cocoa value chain: 1. Low productivity 2. Marketing challenges(and therefore low prices) 3. Pests and disease, 4. Environmental concerns(soil fertility), 5. Access to education. This program includes a “Gender Empowerment program” meant to increase the participation of of female farmers. Their key performance indicators (KPI’s) measure improvements in productivity, livelihoods and communities. The KPI’s measured are: 1)Number of farmers who apply minimum number of good agricultural practices. 2) Number of farmers adopting recommended planting material to rehabilitate farms, 3) Number of farmers adopting recommended fertilizer/soil fertility practices. The KPI’s for community development are: 1. Number of children participating in child labor defined by ILO Convention 182, 2. Number of women in leadership positions in farmer organizations 3. The percentage of school age children attending schools.

B) CocoaLife: Rather than partnering with certifiers, Mondalez, the world’s second largest chocolate company has created its own sustainability program called CocoaLife. The goal for CocoaLife is to transform cocoa farming in the following ways: 1. Through improved agricultural practices which includes the use of specified planting material and crop protection. 2. Through community empowerment (Community Action Plan), 3. Encouragement of education, 4. Promotion of entrepreneurship and added income, 5. Protection of ecosystems and landscape. Their key performance Indicator(KPI’s) are: 1. net income, 2. productivity, 3. increase in female participation, 4. increased capacity to self advocate, 5. Diversity of income, 6. Protection from external shocks, 7. reduction in child labor, 8. more farmer opportunity 9. improved environmental sustainability, 10. increased conservation. CocoaLife uses FLOCert, a 3rd party verification connected to the Fair Trade standard. New products will have a "CocoaLife" stamp, which means that the cacao sourced is fair trade but other ingredients are not.

Sustainability Initiatives in the Chocolate Industry

As part of the work I did at my practicum position at the Fine Cacao and Chocolate Institute (FCCI), I have been researching and evaluating the sustainability initiatives of large and small chocolate companies, under the guidance of Dr. Carla Martin, a professor of Anthropology at Harvard University. Dr. Martin started the FCCI in 2015 as a nonprofit in order to identify, develop and promote fine cacao through educational programs (Martin, 2018a). The FCCI conducts research and disseminates information on things related to fine cacao such as cacao origins, processing, quality and ethics (FCCI, 2018). As a researcher, I was responsible for compiling a data base of all organizations that work with chocolate and cacao including nonprofits, assessment agencies, and companies and tracking their sustainability programs or frameworks. By comparing the various programs with each other and to assessment indicators, I was able to determine how organizations and companies measure sustainability efforts (indicators), how far-reaching they are (impacts) and which elements are more effective than others to determine improvements in the quality of life for farmers and the health of the environment. Below is a list of indicators compiled from my research at the FCCI.

Figure 2 summarizes the main indicators of certification schemes and corporate certification schemes based on the degree to which the schemes value them. These are grouped together because they comprise the majority of sustainability initiatives in the commodity chocolate industry. The indicators were derived from researching corporate sustainability initiatives which involved reading impact and transparency reports, and company websites as well as from interviews. The graphs indicate what the current focus is on mainstream sustainability programs. The top indicators such as labor rights, farm management, capacity building, child labor and ecological methods are all indicators that align with almost all sustainability initiatives. What the graph omits are

Indicators for Certification and Corporate Sustainability Programs

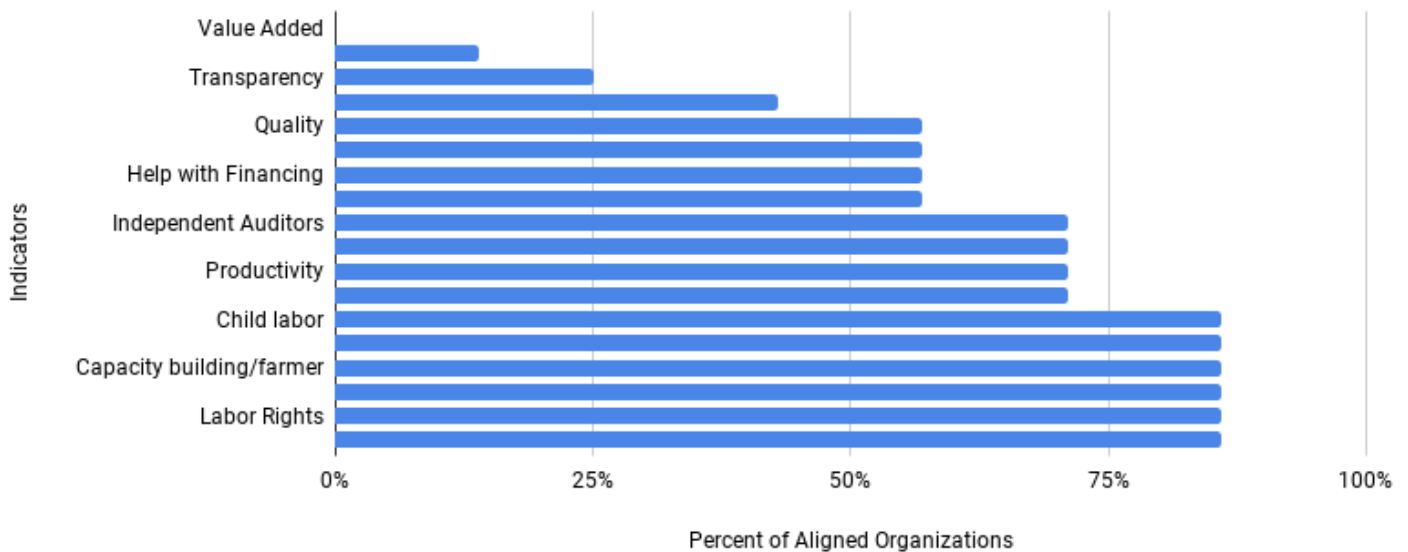


Figure 2) Percent of certification and corporate sustainability organizations that were aligned with sustainability indicators.

things like reach and quality of indicators. Both of which are important indicators of wellbeing and livelihood improvements, which will be discussed more in the following section.

Sustainability or Greenwashing?

As mentioned previously, certification is the manner by which corporations are proving their sustainability. This moment in time is ripe for a critique on what these standards actually indicate because the majority of chocolate manufacturers are poised to market their chocolate as sustainable in the next 7 years. What is the evidence for claims of improved livelihoods of smallholders? By using the lens of the livelihood framework and specifically the 5 Capitals model, the answer to this question might be made clearer.

A) UTZ: The research done on UTZ/Rainforest scheme is fairly limited (Bray Nielson,

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2017) but there are some commonalities between this certification and others that can be deduced. In their review of the impacts of schemes on coffee farmer livelihoods, Bray and Nielson (2017) found that in general there are positive impacts on water and soil as a result of certification schemes and with Rainforest Alliance in particular, farmers belonging to the scheme engaged in waste management as opposed to non certified farmers. Also because certification requires membership in cooperatives, farmers gain benefits through things such as technical support and better access to markets which has a positive impact on incomes (Bray, Nielson, 2017). A study by a Dutch development agency called HIVOS International revealed that the benefits of farmer training and assistance that come with the UTZ certification are not available to women due to inequalities in access to cooperative (Ingram et al, 2014). In response UTZ has expanded their code of conduct to include specific codes that are more gender inclusive such as equal access to training, representation of women in unions and cooperatives as well as the promise for raising awareness and communicating women's rights (UTZ, 2009). It has also accommodated its code in order to account for the extra work that women do to meet their certification standards, although it wasn't specified how exactly this would be done. An assessment on the UTZ gender code performed by HIVOS International, a Dutch development agency, concluded that UTZ didn't offer any specific requirements when auditing for gender and that the perspectives of women involved in the scheme or women's organizations was not considered in the auditing of the program (Ingram et al, 2014). Applying a 5 Capitals lens, its clear that the social asset of UTZ certified is inadequate because any gains in this asset should be made by everyone in the community and not just by a few. Bray and Nielson (2018) warn that this discrepancy could result in rising inequalities between genders.

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B) Organics: Like with UTZ certification, it is difficult to claim that organics help achieve better livelihoods because benefits are often offset by negative ones. For example, while organics offers a premium price above the market price, these are offset by increases in labor cost needed to meet certification standards (Bray & Nielson, 2017). Organic farmers benefit through certification by being linked into markets, and getting assistance in the form of inputs(natural fertilizers) and best farming practices that can increase yields (Blackmore & Keeley, 2012) but organic certification also tends to benefit farmers that are already linked into the market (Haynes et al, 2012). Of all the certification schemes, Organics reduces chemical uses most and has a positive impact on soil and water health especially when coupled with strong institutional support (Bray & Nielson, 2017). The fact that organic farms are increasingly scaling up to become industrial sized and while premiums shrink and standards erode (Haynes, et al, 2012) makes it difficult to conclude that there are any positive gains in both environmental and financial capitals of smallholders.

C) Fair Trade: The Fair Trade scheme has a powerful message of protecting farmers against exploitive aspects of the market by trying to address market imbalances (FLO website). Whether or not they achieve this is up for debate. One advantage to Fair Trade is that it buffers farmers against market volatility because the price for fairly traded cacao is determined in advance. And like with organic schemes, benefits come in the form of valuable partnerships that links producers with a market for their beans (Blackmore & Keeley, 2012). Participation requires membership in a coop, which has benefits but like UTZ certified, these benefits disadvantage women because participation requires members to own land, which women often don't (Bray & Nielson, 2017). There is also a risk that female labor is unrecognized and unpaid.

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In their study on gender equity in coffee organizations, Lyon et al point out there is the potential for women to engage in self exploitive behaviour in order to keep up with the increased work required to maintain certification and home life (Lyon et al, 2008). As the demand for Fair Trade cacao increases through corporate partnerships, the negative impact on the health and well being of female farmers could be significant if not addressed.

In his analysis of the fair trade scheme, Jaffee says that on the “embeddedness” continuum, which shows how much the market is espoused in principles other than for profit, fair trade is a “moving target” (Jaffee, 2007). As larger corporations enter the fair trade market, the commitment to the fair relationships that once embodied fair trade principles start to erode. The new “Fair Trade Sourcing Program” which allows non-fairly traded ingredients to be present in confections while still receiving the fair trade stamp of approval is an example of these eroding standards. The lack of farmer solidarity is the antithesis of the fair trade vision which, according to their website, tries to rectify: “The imbalance of power in trading relationships, unstable markets and the injustices of conventional trade” (FLO website). Reflecting on these corporate partnerships, Jaffee states that fair-trade’s “attempt to change the rule of the game has led it to enter the very game it was formed to counteract” (Jaffee p.32, 2007). Using the lens of the 5 Capitals Livelihood Framework, we can see that the claims made by Fair Trade of increased human capital just don’t add up. As I will explain in Part 3, Cacao Together will avoid the problems that Jaffee found by increasing the embeddeness in relationships among partners and ultimately by using a non profit model so that profit doesn’t get in the way of motives for increasing equity in the cacao value chain.

Corporate Sustainability

While certification schemes has attempted unsuccessfully to improve the livelihoods

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of cacao smallholders, corporate sustainability programs are attempting to achieve sustainability through technological innovations and a productivity model of agriculture. The World Cocoa Foundation, a nonprofit whose membership includes industry giants such as Mars, Hershey's and Callebaut, argue that increasing productivity is the solution to the issues in the cacao supply chain (WCF, 2018). While productivity is definitely an issue for farmers, the methods proposed by the industry are not sustainable in that their net impact on the environment is negative rather than positive. For example, productivity methods of agriculture supports monoculture, which decreases biodiversity while increasing the dependency on water to irrigate these farms and on fertilizers (Godfray & Garnet, 2014). Further issues with this model is the needs to innovate, reduce farm gate prices, and externalize costs (Abate et al, 2009). The International Assessment for Agricultural Science and Technology for Development (IAASTD) published a report in 2009 on the state of world agriculture called "Agriculture at a Crossroads". Considered the most comprehensive assessment of agriculture, it proposes that small scale agriculture, and more ecological farming practices better address the complexities of hunger, climate change and poverty (Abate et al, 2009).

Productivity is also regarded as an effective way to decrease poverty because it is assumed that as farmers intensify cacao production, their incomes will increase will increase (CocoAction, 2017). Technological solutions to agriculture tend to discriminate against small-scale and marginalized farmers, however, because fertilizers, pesticides, and irrigation methods require access to funds that not all farmers have (Patel, 2013). Patel (2013) argues that the use of green technologies in India to eliminate hunger and poverty, resulted in an increased concentration of land ownership where small scale farmers were displaced. This outcome didn't result in reduced poverty as claimed, but in greater inequality. Indeed the industry doesn't disregard the potential consequence of

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this model. When I asked a leading scientist at Mars Corp. if these methods could cause overproduction and hence a drop in prices, his response was that the structure of land ownership will move towards an increased concentration of ownership where non-competitive farmers will end up working on large farms (FCIA, 2018). Thus, going back to the earlier discussion on how to define sustainability, we might want to ask the following question: “What is to be sustained? For whom?” (Lele, p.615, 1991). In the above example, the answer is clearly, ‘those who can help us “sustain” the way things are in order for us to continue to benefit. This very egocentric approach to sustainability in the corporate world is the norm, sadly.

Specialty Chocolate Sustainability Programs: Something Different?

The specialty chocolate industry differentiates itself from the industrial chocolate makers like Hershey’s and Mars, through quality standards and stronger relationships with producers, but do their initiatives achieve greater sustainability? While the mass chocolate market is defined by its large production capacity and homogenization of flavor, the “bean to bar”/craft or specialty chocolate makers in comparison are smaller, both in ownership and processing capacity (Martin, 2017). Another differentiation is manufacturing chocolate using cacao based on the notion of fine quality, that is cacao lacking off-notes and defects (Martin, 2017). Fine flavour is also based on genetics and better post-harvesting processes, that is the way in which the beans are fermented and dried after the cacao is harvested (Guyton, 2018). This shift in processes also is correlated with different impacts on the farm and producer level, which, however, are not always easily verified due to lack of measurement. Generally speaking, the specialty industry purchases fine flavor beans at a premium above the commodity price for beans (Martin, 2017). Often, specialty chocolate makers contribute to programs that support farmer training and equipment purchases for the purpose of flavour development

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(examples are the manufacturers Tcho, Madecasse, and Askinosie). The emphasis on quality often coincides with better ecological practices, more species diversity on farms, better prices for farmers and a better tasting chocolate (Guyton, 2018). By using the 5 Capitals lens to measure improved quality interventions, it appears that there are positive impacts on environmental and financial capitals for smallholder farmers which can move them towards greater well being.

Sustainability efforts are uncommon in the specialty chocolate industry and chocolate makers of specialty cacao often make claims about positive impacts on farmers without any real evidence of verification (Martin, 2017). A commonly used term in the craft chocolate industry is “direct trade” but it’s difficult to know what the beneficial impacts are for direct trade since there is no body of research literature on direct trade (Slocum, 2017, personal communication). First used in the specialty coffee sector, direct trade refers to the business relationship between the chocolate maker and the grower (or grower co-op) where the chocolate maker buys beans directly from producer in order to control quality and flavour. Direct trade manufacturers point out the benefits of this kind of arrangement for growers/producers, particularly by increasing the value of the cacao through quality interventions, which enable them to gain a better price on the market in general (Dandelion Chocolate, 2015). Another alleged benefit of direct trade is increased commitments to social and community development because of the nature of directly working with producers. While this may be true for some companies, it is difficult for anyone to verify if this is true for all manufacturers, and some manufacturers have asked their customers to trust them when they talk about direct trade impact (Martin, 2017). The potential to direct trade relationships might be in building human capital through things like community development projects or financial capital, through increased incomes, but due to the lack of qualitative studies on the topic of direct trade,

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it's impossible to verify these claims.

A potential benefit for producers is that the fine flavour cacao favoured by specialty chocolate makers tend to be grown in more traditional agroforestry systems where fruit trees are interspersed with cacao for the purpose of providing shade and other crops for the farmers (Guyton, 2018). Diversification such as through intercropping or agroforestry is good because it creates and protects micronutrients in soil but it also enhances the potential for profits and food security through diverse activities and outputs (Chambers, Conway, 1994). Livelihoods and food security are enhanced through farm diversification, and this biodiversity also benefits farmers by providing a respite from the hot sun while working.

While environmental impacts of this system is large, the specialty chocolate market is small, however. There are roughly 480 specialty chocolate makers in the world (Martin, 2017) but yet only 5% of the world market is devoted to specialty chocolate (Homann, 2016). This means that the reach is much smaller than commodity chocolate makers and hence, the benefits to producers and to the environment is also smaller. Cacao Together hopes to harness some of the positive interventions used by the specialty chocolate industry, namely its focus on quality beans and diversity on farms, with an attempt to increase impact through more collaboration and exchange in the industry, creating positive feedback loops not only for producers but among industry players and potential players so that livelihoods are built across the entire value chain.

Figure 3 shows the potential benefits to smallholder cacao farmers of selling beans to specialty/craft manufacturers. These finding are derived from researching the sustainability initiatives of specialty chocolate makers which involved reading impact and transparency reports, company websites as well as from interviews. While some of these indicators have been documented to have benefits such as cooperatives, and price

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premiums, others such community development and direct trade are based on what companies report and not on any system of measurement.

Indicators for Craft Manufacturers

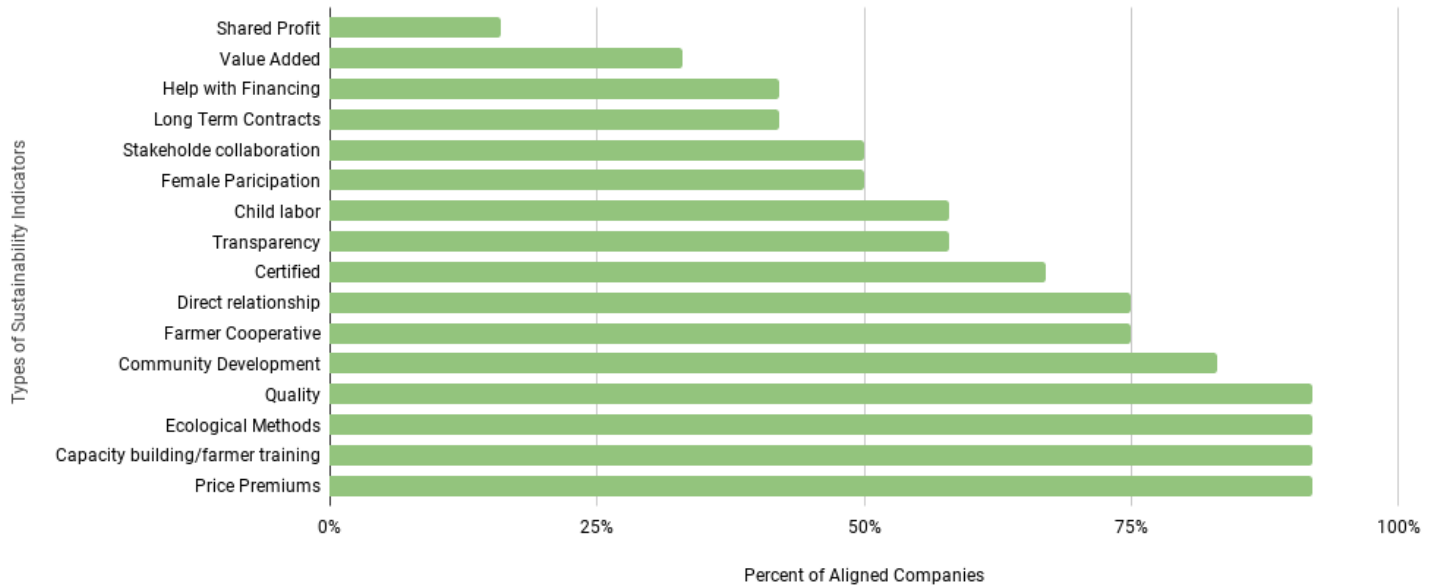


Figure 3) Percent of certification and corporate sustainability organizations that were aligned with sustainability indicators.

Assessing Sustainability Efforts in Chocolate Industry using a 5 Capitals

Livelihood Framework

Since certifiers on their own have shown to be insufficient in tackling the multidimensional aspects of poverty, using a livelihood framework such as the 5 Capitals helps build a better framework for the purpose of improving livelihoods and increasing well being for cacao farmers and other members in the cacao supply chain. Such an example can be found in the Kuapa Kokoo cacao cooperative in Ghana and in their partner, the Divine Chocolate company. In order to create the value added product of a finished chocolate bar, the Divine chocolate company formed partnerships with Fair Trade International, Twin Trading, and other companies such as the Body Shop. Fair

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Trade provided market access for Kuapa Kokoo cacao as well as farm management and technical training. Twin Trading provided training in the form of business and accounting skills while the body shop provided the coop access to a market for their cacao butter, a value added product. Other benefits include a women's leadership program which has become so successful that coop members are running for positions in local governments (Barrientos, 2008). But I believe the core for success of this model lies in their shared profit model. The staff of Kuapa Kokoo are joint shareholders and the farmers are "equity owners" of value-added products that include finished chocolate products and cosmetics being sold in northern markets (Tiffen, 2002). The significant revenues received from profits allow for larger scale asset building, since positive feedback loops are increased when capital input is significant (Donovan & Stoian, 2012). Furthermore, since more assets are built through various channels, such as human, financial and social, Kuapa Kokoo sees higher overall well being. The story of the Kuapa Kokoo cooperative is an example of how collaboration with various stakeholders and a shared profit economic model can create a model for sustainability which integrates agricultural activities with cultural, social and economic well-being, and in effect creating positive feedback loops throughout all 5 Capitals.

A 5 Capitals-based Assessment of the Chocolate Industry.

The Divine Chocolate company is my choice for an exemplar of better sustainability practices, and so I will use it as a benchmark for the scoring system for my assessment. The method I used to rate the various sustainability frameworks of certifiers, corporate sustainability programs and specialty chocolate manufacturers uses the 5 dimensions of the 5 Capitals livelihood model to score each entity. For example, if there were positive ecological impacts of a given certification scheme, it would get a higher score on the dimension of environmental capital.

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What information did I use to score each entity? I used what I had learned through my research at the FCCI, and from my reading of the critical development literature (much of it cited in the paper) to score each entity on each dimension. There have been many academic papers and studies on the impacts of sustainability certification schemes. During my time at SIT, I have researched how these impact producer livelihood and whether or not claims of livelihood improvements can be verified. My earlier critique of the sustainability initiatives in the chocolate industry is based on this research. One particularly helpful resource was the work of Bray and Nielson's which surveyed all major studies on certifications schemes and assessed how well each did in relation to a livelihood model.

My research at the FCCI has also given me the scope of knowledge of the different initiatives. During my practicum, I read transparency and impact reports and company websites, which I used to make the list of sustainability indicators from Figures 1 and 2. During this time, I also attended conferences such as the World Cocoa Conference on Sustainability in Berlin (<http://www.worldcocoaconference.org/>) where I attended many meeting and workshops that helped me gain a better understanding of which sustainability initiatives are most impactful and beneficial for building better livelihoods. Furthermore, I interviewed owners, managers, academics and other people working in the field of sustainability in cacao to broaden my understanding of which kinds of sustainability initiatives work and which don't. I analyzed everything I knew about each entity through the lens of the 5 Capitals framework to arrive at the scores.

In order to assess the specialty chocolate industry, I investigated what each manufacturer was doing to increase sustainability. I categorized each indicator into one of the 5 capital categories. I then gave them a score of 1-10 based on what I know about their particular indicators. For example, if I knew that they were using agroforestry

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systems, I gave them a high score such as 7 or 8 because this system helps build diversity and creates food security on the farms. If they were using a certifier such as UTZ as an indicator for environmental sustainability I scored them lower because UTZ standards align with productivity methods of agriculture (UTZ, 2018) that itself scores lower because of its reliance on inputs such as fertilizers and because these systems lack farm diversity. I went through my list of indicators such as producer organization, female participation, premiums, quality interventions, and gave each a score based on what I knew from my research. In the same way, I gave each of the certification schemes (UTZ, Fair Trade, Organic), and each of the corporate sustainability programs a score. I then calculated the average for each entity type. I used the same scoring system for the Divine Chocolate Company, which I chose to be my example of a truly sustainable chocolate manufacturer.

The chocolate industry assessed using the 5 capitals.

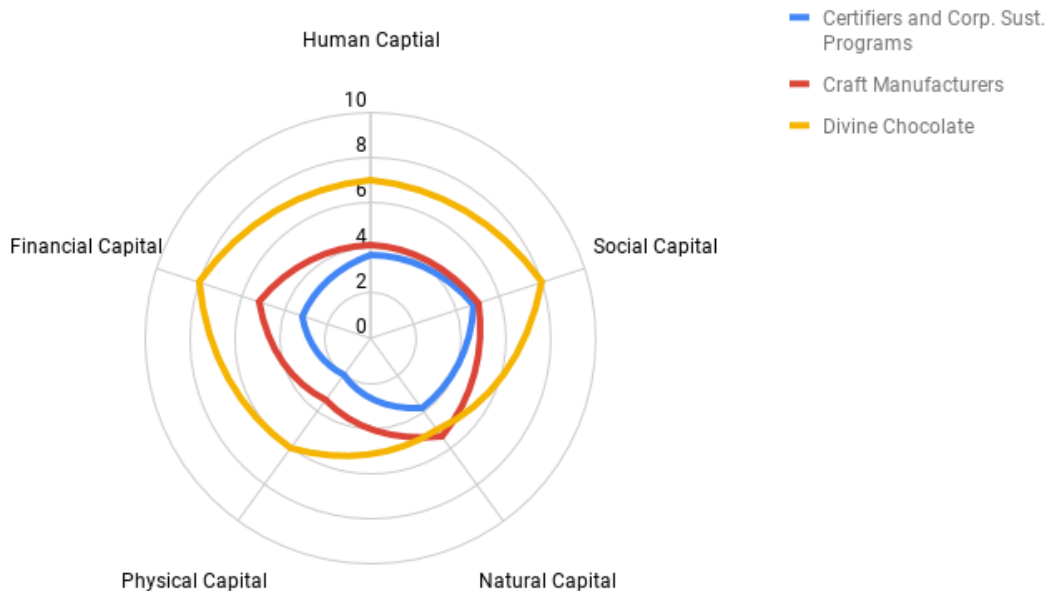


Figure 4) Visualization of ratings on a scale of 1 to 10 for support of the 5 Capitals for three categories of organizations. A table with the full rating data is in Appendix 4.

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Figure 4 is a visual representation comparing the sustainability initiatives of the corporate and the specialty chocolate sectors and of Divine Chocolate, a company who shares its profits with the Ghanaian cacao cooperative Kuapa Kokoo from which it sources its beans. As a result, it rates high in the social, human and financial capitals. In comparison, corporate sustainability and certification schemes rate fairly low in all 5 Capitals especially in human, physical and financial capitals. This is because their sustainability programs do little to counteract the market mechanisms that dictate cacao prices and benefits are limited in scope. The craft or specialty chocolate sector rates higher than corporate sustainability programs because farmers receive significantly higher prices for beans and their farms are more ecologically sound.

Cacao Together will use the philosophy of the 5 Capitals livelihood model as a way to create a new non-profit organization that will be truly sustainable, and will lead to truly sustainable development in cacao-producing communities around the world. In the next section, I will present my venture plan for Cacao Together.

Part 3: A Social Venture Plan for Cacao Together

Now that the state of sustainable development initiatives in the chocolate industry are clear, I will present a social venture plan for a non-profit called Cacao Together that will draw on the lessons learned from the weaknesses and strengths of existing efforts.

Definition of the Social Problem

Chocolate is big business. The chocolate industry is a \$100 billion a year industry and growing with expected sales to reach \$275 billion by 2025 (Confectionary News). Yet the farmers who fuel this industry are some of the most impoverished people in the world, many of them living on less than \$2.00 per day while performing tasks that are extremely labor intensive. The cacao farmer must plant, prune, harvest, ferment, dry and often transport the beans but in the end, nets only 6% of the total cost of a chocolate bar while the rest is divided upstream between traders, processors, manufactures and retailers (Make Chocolate Fair, 2018). With the industry controlled by a few global giants, farmers have no power to negotiate a better price and price volatility makes it hard for farmers to secure a reliable source of income (Cacao Barometer, 2015). Thus, farmers can't reinvest in their farms in order to buffer them against the threat of climate change, and aging and diseased plant stock. As a result, cacao farming has become unsustainable as a livelihood and farmers are leaving the farms to look for work in the cities.

Sustainability efforts are ongoing in the chocolate industry to mediate this situation. Partnerships with certification schemes such as Rainforest Alliance, Fair Trade International and Organic certification are attempts to improve the livelihoods of farmers but they have had less than successful track records(Cacao Barometer, 2015). Efforts to increase yields, increase participation of female farmers, and reduce child labor on farms, are not enough to end poverty, environmental degradation and food insecurity

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(Cacao barometer, 2018). A drop in cacao world market prices last year, a direct affect of increased cacao production, saw farmer's incomes drop by 30-40% in 2017 (Cacao barometer, 2018).

Mission and Vision

Short of a complete overthrow of the market system as we know it, something needs to be done to help alleviate the economic pressures that these farmers, and fast. I believe that something can be done by shifting our perceptions of how cacao is to be consumed, and by doing so, we can transform the lives of cacao farmers and help revitalize cacao farming as a livelihood. One answer lies in a "waste product" which is being overlooked during the process of turning cacao which is a fruit, into chocolate, the finished product that is processed mostly in Northern markets, thousands of kilometres from where the cacao is grown. When opened, cacao contains a delicious and nutritious pulp called baba, which surrounds the cacao beans nestled within the cacao fruit. The baba, along with the beans are fermented in large bins to start the beginning stages of the chocolate making process. During this fermentation process, the juice from the baba runs out of the bins and becomes a waste product. if captured, however, this juice has amazing potential to become a source of food and added income. As a food source, it is a nutritious juice and with minimal processing, it can be turned into a jam, syrup or wine. As an added value product, it could potentially double the income of farmers while at the same time creating livelihoods around the processing of the juice and fruit pulp, not only for producers but also for manufacturers here in Northern markets. The vision for Cacao Together is to help create products using the cacao juice and fruit by collaborating with experts and food entrepreneurs to test, formulate and publish recipes and methodologies for these new products. The mission for Cacao Together is to build a community of people who are interested in and want to become part of a movement to

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bring change and more value into the chocolate and cacao industry through awareness, mutual support and collaborative action.

The Program, Organization or Initiative

Cacao Together uses the concept of social solidarity economy as the foundation of its operation. The solidarity economy, as defined by the Lima declaration “incorporates cooperation, collective sharing and action, while putting the human being at the center of the economic and social development” (http://www.ripess.org/wp-content/uploads/2011/07/declaration_lima1997_EN.pdf) This definition has informed the business model (non-profit) as well as the principles by which Cacao Together operates. The goal of Cacao Together is two fold: First, it will provide a learning and innovation space for people who are interested in food sustainability to experiment and create recipe and products using the medium of cacao and chocolate. Second, it will help build food sovereignty for cacao farmers by establishing a production facility for processing cacao juice which will supply the raw material for Cacao Together and other manufacturers and distributors.

The first phase for Cacao Together will be to open a cafe/lab and workshop in Brattleboro, Vermont a small city in Southern Vermont with a strong community spirit and identity. This phase involves finding a partner or group of partners to open a collaborative workspace and cafe from which to develop new products, launch educational programs and build an engaging online presence to share the Cacao Together journey more widely(CocoaJustice, 2017). Relying mostly on public investment, this space will be become the hub for the Cacao Together’s sustainability activities and organizational values which will inform our community networks and the collaborative relationships with local food entrepreneurs, experts, and farmers.

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The centrepiece of this space is a lab bench for experimenting and experiencing products made from juice of cacao. Some potential collaborators could be wine makers, cider makers and beer brewers. There has been research done already on how to make wine and beer using cacao juice as raw material (Nunes et al, 2012). Other potential partners could be local ice cream manufacturers, maple syrup manufacturers, nutritional supplement manufacturers, and confectioners. All the activities and experiments will be recorded and those recordings will be shared with the online community of partners to increase engagement on Cacao Together's website.

To help develop the new line of cacao juice related beverages, Cacao Together will offer monthly experimentation "jam" sessions to play in the kitchen. The recipes and product prototypes that arise from these sessions could then be tested and refined, and then made in small batches. The products from these test batches could then be offered for sale at the cafe in order to get feedback from customers. Customer feedback will be invaluable as we begin designing products in order to find wider distribution and to launch into the second phase of our program. The revenues from the sales of these products will fund further research and development for scaling up production of the cacao juice project.

To make the most effective use of the space, we will also conduct other income producing activities such as: classes on chocolate-making, sensory analysis, and food sustainability. Cocoa Together has the goal of making learning accessible, affordable and holistic. Using principles of a social solidarity economy, we want to build community and equity in local and global economies. One way to do this is by offering payment options for classes. For example, students can chose to pay for full price for the workshop or they can participate in a class free of charge and in exchange help with tasks required to operate the organization such as administrative tasks, or production

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activities. All the resources and material we covered in classes or during experimentation will be made available on the Cacao Together website for online learning and discovery.

Cacao Together also serves as a catalyst for new products and new ideas involving cacao juice. The idea is to work together with all the stakeholders to discover a truly sustainable value added product made from cacao pulp. This is the heart of Cacao Together project. Since cacao juice is perishable and can begin to ferment quickly when exposed to air and heat, the juice will need to be manipulated on the farm (or nearby processing facility) in order to make it shelf stable. There are several ways this can happen. One is to pasteurize the juice by cooking it. Another is to add yeast and turn it into wine or another alcoholic beverage. It can also be reduced into a syrup, a concentrate or a jam.

There are currently 2 companies in North America selling products using the juice and the baba. One is a retail company that sells its pasteurized fruit online through retail channels and another is a wholesaler who sells a processed juice, frozen baba and a powdered form of the juice. In the beginning Cacao Together will buy juice from this wholesaler for experimentation and product development. These products will be tested at the cafe/lab in order to refine and develop the product and make it ready to sell at retail outlets and online. One very promising idea for a product is to create a functional beverage using ingredients that supports health and well being both for the people that consume it and for the farmers who produce it. This message will be an important aspect of the marketing because it will be one way to connect the consumer with the farmer.

The management of stage 1 involves two persons: the founder, Kerstin Roos and an assistant who will help with daily operations connected to developing and marketing a product, and who will assist in classes and other duties connected to the cafe/workshop.

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The second part of the program and stage 2 will be working with farmer partners in cacao growing regions in order to establish a reliable and consistent source for the cacao juice and fruit that can be sold locally and internationally. The first step will be to find a farmer cooperative or community that is interested in developing a secondary product alongside an already established business of exporting raw cacao. We will then work with partners and NGO's to provide these farmers the skill and competencies necessary to commercialize this new cacao juice product. This includes providing business and marketing skills, food safety and recipe development and investing in a physical structure for the purpose of processing the juice directly on the farm. During this phase we will be actively seeking collaborative partners in other chocolate makers/manufactures for the purpose of funding and investing in this project with the goal of finding new customers for the value added product.

There are several moving parts during this phase: The first is locating a supplier/farmer group for processing the juice and the second is scaling up business in order to generate enough revenues to sustain the profitability and viability of the processing facility. As mentioned, the goal is to work together with other companies who are interested in buying cacao juice. Ideally, the farmer group will also be able to sell the juice that they make in local markets. Here, collaboration with producers by testing and sharing recipes and developing them for local tastes will help build the confidence needed to create a local presence. As we find mutual beneficial partnerships, we will also simultaneously be looking for ways to scale up production in southern Vermont. At this point, we will need to find a co-packer in the area or partner with other companies, such as the Artisan Beverage Cooperative in Greenfield, MA to ramp up production. The goal is that by the end of Year 5, product sales will be around \$500,000, which will be able to support the building of another processing facility.

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Key Collaborative Partnerships

Partnerships are crucial to the success of this organization. Collaboration with other cafe partners are important for sharing the costs of rent and other expenditures. Good collaborative partnerships with other entrepreneurs, food experts and people interested in cacao will catalyze the development of cacao based products that can further inspire the creation of new markets. Stage 2 involves forming important partnerships with various stakeholders. For example, partnerships with nonprofits are critical because they can provide producer groups with skills and training necessary for the capacity building needed to make the project successful. The collaborative partnerships with chocolate makers and manufacturers are also key, as they already have knowledge and information for contacts on the ground. They will also be a potential source of funding and investment in new projects that will build awareness of and momentum around products created from the juice and fruit of cacao. Finding the right group of cacao farmers and cacao juice users in the developing world will be the most important element to the success of the program. During my research, I found groups that were using cacao pulp juice in Central America, Brazil and Mexico, and there may be more that are not visible yet on the Internet.

Theory of Change

Cacao Together's Theory of Change is based on the 5 Capitals, an asset-based approach to livelihood development that uses higher impact interventions in the value chain to build up assets in the form of capitals. These 5 Capitals are human capital, social capital, natural capital, physical capital and financial capital (Donovan & Stoian, 2012).

The premise behind this asset based approach is that by linking smallholders (such as cacao farmers) directly to markets through value chain development (VCD)

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interventions, the relationship between smallholder and other chain actors such as input providers, buyers and processors are strengthened to create a win-win situation (Donovan & Stoian, 2012). These strengthened relationships increase the potential for added value among producers and helps with the development of new products through interventions such as technical, business or financial services with the expected result that smallholder make significant livelihood improvements through asset building (Donovan & Stoian, 2012). Using interventions such as linking cacao smallholders to markets through a value added product, Cacao Together's theory of change is built on the assumptions that a value added product made from cacao juice will build assets in all of the 5 Capitals. For example, a value added product, along with proper interventions such as capacity building and a building of a processing facility, will create physical capital (the production facility), human capital (through education), financial capital (from increased income), social capital (stronger community around the project) and natural capital (an environmentally sustainable use for cacao pulp). Together these assets will create positive feedback loops that will continue to increase assets to make a positive impact on livelihoods for millions of farmers world wide. We can use the 5 Capitals framework to build a global community around cacao juice product development projects as well: Funding, expertise and raw material (cacao juice) will create human capital in the form of knowledge and resources (such as databases made available on our website) which will create social capital (a community) and financial capital by creating more enterprises around the use of this product. The demand for more raw material from this spin-off enterprises will eventually loop back into the producer ecosystem reinforcing the cycle.

I have created visual representations of this theory of change and they are found in Appendices 1, 2 and 3.

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The Business Model

Cacao Together will operate as a 501(c)3 not-for-profit entity, whose main objective is to create social impact. It will do so through tax-deductible fundraising during the three phases of the project (the first three to five years of operation). Cacao Together will become increasingly less dependent on donations as sales of its products increase. At its launch, Cacao Together will grow by partnering with other entrepreneurs in the region who would be interested in co-founding a retail cafe, workshop and collaborative kitchen in the town of Brattleboro. The retail interactions and educational workshops will generate revenues, but these activities will also help form networks connecting people through a common desire to create a community around and developing new recipes and products using cacao juice and fruit. The long-term goal for the Cacao Together project is to help develop a value added product for cacao farmers in the country of origin by funding the production of small and medium sized processing facilities for the purpose of improving livelihoods and well being for smallholders through value linked enterprises . This project will be sustained by the sale of these value added products, in cafes, retail locations and online throughout North America.

Phase 1: Start-up phase, 6 months.

The start up capital needed is estimated to be around \$15,000 in order to pay for the development of the business(insurance, licences, brand design, and creation of a website), 6 month's rent for a shared space, any upgrades, small equipment, tools and ingredients. In order to do this, Cacao Together will apply for various community development funds such as the one offered by the Wyndham County Economic Development Program and for various business plan competitions. Other funds will be raised through fundraising campaigns, donations and personal investment.

Phase 2 : Retail cafe/workshop, 2 years.

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The second phase of the enterprise involves managing a workshop and kitchen which will offer classes and develop recipes and produce a line of products to sell in the collaborative retail cafe, online and through other retail partners. Revenues from ongoing classes and workshops will help fund this project but expected expenditures will require continued funding from loans. The expenditures during this phase include the salary for two full time employee, product design and packaging, supplies, ingredients, rent, travel costs, etc. The revenues generated during this phase include:

- classes and workshops
- membership dues
- product sales
- continued grants for community development projects
- donations
- fundraising

Phase 3: Sourcing and scaling up, 2 years

This is the most expensive phase of the program and will require a large injection of capital to make the vision a reality. This phase involves several parts. The first is finding a partner group of farmers for the purpose of developing a processing facility that can process the fresh baba into a product for export and for local consumption. The second is scaling up operations to produce and sell the product or a variation of the product in shops, online and in our cafe which will require additional infrastructure investment. The third is developing a solid market plan that ensures the continued sustainability of Cacao Together's mission.

This phase requires strong partner collaboration between various actors in the supply chain: producers, chocolate makers, processors, suppliers, and customers in order to build solidarity and commitment to the vision of creating livelihood opportunities

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and well being for smallholder cacao producers. The success of Cacao Together depends on the assumption that funding in the form of grants, donations or investments can be raised for the purpose of building a processing facility and training people to operate it. I believe that the innovative concept of Cacao Together will generate interest and support from many key stakeholders in several ways. One, through grants from development agencies such as USAID and through foundations such as EchoingGreen who offer yearly scholarships for innovative social enterprises. Two, through corporate and company donations and investments. The very real threat of cacao farmers leaving farms to find work in cities is propelling corporations to invest in sustainability initiatives. It is estimated that the industry has invested \$600 million in certified cacao (Confectionary News, 2018). I believe that companies will invest in Cacao Together in order to achieve the dual goals of keeping cacao farmers on farms while at the same time boosting their corporate social responsibility message. Investments from smaller chocolate companies will be another source of funding. As part of their commitment to sustainable sourcing, the specialty chocolate industry is invested in community development projects and improvements in livelihood for farmers. I believe that these smaller chocolate makers will be interested in the potential to create a new product line that will support the cacao farmers and their size and subsequent flexibility will make it possible for them to market a new product either in their shops or cafes. With over 400 small bean to bar chocolate makers worldwide (FCCI, 2018), support for this project shouldn't be hard to find.

The Cacao Beverage Market

Cacao Together is entering the cacao juice market at its very beginnings. It's difficult to speculate on the future direction of this industry, beverages or foods made from the juice of cacao, because it is still in its infancy. There is currently only one other

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product on the market in the US, a product called “Repurposed Fruit” which is a pasteurized fruit juice made from cacao pulp. Because cacao juice is naturally high in antioxidant and magnesium, a natural fit for this product is in the natural and organic category, and specifically, in the category of functional foods.

According to a beverage industry website, the “natural and organic” beverage industry has seen 8.5% growth in the past year (Beverage Industry, 2018). Another growing market is the energy drink market, which the Food Insider Journal predicts will account for 40% of all drink sales over the next 8 years (Food Insider Journal, 2018). While there are many ingredients to increase energy, the same publication points to growth in natural ingredients such as vitamins, ginseng or green tea that promote health and have functional characteristics. In order to capitalize on this market, cacao juice beverage could be fortified with a variety of health promoting ingredients customized to specific needs. The addition of natural ingredients such as maca (for increased energy), magnesium (for calming), or adaptogenic ingredients such as reishi mushrooms (for generating well being) also aligns with the growing trend towards self-care and wellness.

Consumers are also demanding increased transparency and sustainability in their products (Food Insider Journal, 2018). For example, natural and organic products outpaced growth in all other food and beverage products (Granderson, 2016). Specialty Food magazine notes that consumers value facts and honesty in brands and want to know where their products come from and what is in them. A driving factor for this, according to the Financial Times (FT website, 2018), are millennials who want natural products that are simple, authentic and local.

Most consumers do not have any experience with cacao juice. I believe that once they taste cacao juice, they will become hooked on the delicate floral notes and its bright natural acidity. The novelty of the drink and the attractiveness of Cacao Together’s

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business model - one that puts sustainability, and food sovereignty in its core mission - will win over customers and build brand loyalty.

The target customers for Cacao Together are savvy, educated and caring citizens of the world between the ages of 22 and older. Satisfied customers will also be key to helping to promote the product and its message through social media outlets. Because of Cacao Together's message and its nonprofit model, I believe that retailers, cafes and other partners will be eager to help distribute and promote the product.

I believe these will be the keys to my competitive advantage. That and the underlying message that we are on this planet together, trying to sustain its health and the welfare of its people everywhere.

Management Team

Kerstin Roos: I have been an enthusiastic lover of chocolate for most of my life. My enthusiasm has propelled me to make a career out of chocolate, which I started in 2001 and am still developing 17 years later. My chocolate-making career started when I began to make chocolate for a small farmers market in New York City after discovering a latent passion for making chocolate that had been hiding deep in my psyche since childhood. When I moved to Edmonton, Canada with my family in 2003, I began offering chocolate tasting workshops to local residents in order to introduce them to the fine flavours of great European chocolate makers that I had discovered while living in New York. In 2005, I opened up a retail space called Kerstin's Chocolates where I sold handmade confections alongside a carefully curated selection of chocolate from outside sources while continuing to offer chocolate making and chocolate educational workshops.

During this time, I began to gain a deep appreciation and respect for the cocoa farmers whose work was invaluable in producing the chocolate that we enjoyed so

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much, yet whose work was also the least valued. It was the beginning of an awareness of the inequity that exists between the poor south and the rich north.

Chocolate also fuelled my love of travel and provided me with an impetus to travel to countries that I might not have otherwise travelled to because they were somehow connected to cocoa growing, chocolate making or chocolate cookery. In 2012, I closed my shop, and with my husband, and 2 children, travelled around the world for 10 months on a chocolate-themed trip visiting cocoa farms and chocolate factories in order to gain a better understanding of the realities of the lives of cocoa farmers and the business of chocolate.

Our travels ended in Germany where we lived for 3 years (eating lots of chocolate) until we eventually settled in Putney, Vermont. It was here that I attended the School for International Training to earn my master's degree in sustainable development. This has allowed me to combine my love of chocolate with an interest in creating better equity along the cocoa supply chain. It is my desire to put to use what I learned over my 17 years studying cacao and chocolate to do my part in making a positive change in the cocoa growing industry.

Marketing and Outreach

Marketing will be key in the success of this project. Cacao Together will have a strong local presence through its local cafe and workshop space and eventually a product with a value proposition that includes health for people and the planet. A larger marketing presence requires the use of an interactive and engaging website where various actors in the cacao value chain such as producers, buyers, manufactures and consumers can go to learn about developments in the forays of cacao juice. Here we will post videos and recipes and document our journey towards building livelihoods using this product. The website will also be a way to market the product once it is ready for

CacaoTogether: Income & Expenditures, Phases 1 to 4

	Phase 1 (6 months)	Phase 2 (2 years)	Phase 3 (2 years)	Phase 4 (2 years)
Income				
Grants	\$5,000	\$10,000	\$50,000	\$20,000
Donations	\$800	\$5,000	\$20,000	\$40,000
Personal Investment	\$5,000	\$0	\$0	\$0
Outside Investment	\$0	\$0	\$100,000	\$0
Tuition Income	\$500	\$15,600	\$15,600	\$15,600
Membership Dues	\$100	\$4,000	\$4,000	\$4,000
Product Sales	\$800	\$40,000	\$80,000	\$500,000
Subletting Income	\$300	\$1,200	\$1,200	\$0
Surplus from Previous Phase	\$0	\$180	\$7,560	\$4,160
Total	\$12,500	\$75,980	\$278,360	\$583,760
Expenditures				
Equipment	\$0	\$4,000	\$75,000	\$100,000
Rent	\$3,000	\$12,000	\$12,000	\$90,000
Training/Education	\$0	\$1,500	\$3,000	\$5,000
Licenses	\$200	\$200	\$400	\$1,000
Insurance	\$400	\$400	\$1,000	\$4,000
Website Related	\$120	\$120	\$800	\$6,000
Packaging+Graphic Design	\$400	\$2,000	\$8,000	\$8,000
Packaging	\$200	\$1,500	\$20,000	\$30,000
Ingredients	\$1,000	\$6,000	\$45,000	\$120,000
Salaries	\$6,000	\$36,000	\$90,000	\$180,000
Travel	\$1,000	\$4,000	\$12,000	\$20,000
Legal Fees	\$0	\$0	\$4,000	\$8,000
Accounting/Bookkeeping	\$0	\$700	\$3,000	\$5,000
Total	\$12,320	\$68,420	\$274,200	\$577,000
Difference (Income - Exp)	\$180	\$7,560	\$4,160	\$6,760

Table 2) Projected income and expenditures for CacaoTogether during the first four phases of operation.

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consumption.

Thanks to the design of the product and the novelty of the business model, I think there will also be opportunities to receive coverage by media channels such as magazines, local and national newspapers, TV and news programs.

Financial Projections

In Table 2, I have include multi-year budget, with cash flow projections. This projection is based on Kerstin's experience launching a chocolate manufacturing and retail business in Edmonton, Alberta between 2005 and 2012.

Evaluation and Measurement of Impact

The 5 Capitals framework incorporates a set of guidelines for assessing the impacts of activities on linked enterprises and households. This involves identifying key stakeholders, their activities, interactions and interventions for developing the value chain. Also included are guidelines for assessing changes at linked enterprise and household levels. Ways to gather this information include the use of good data collection tools such as interview questions, surveys and analysis of secondary information. The last step in the assessment process is analyzing the gathered data and then reporting on it. Cacao Together intends to use this format for evaluating the project and making necessary changes.

Risk and Risk Mitigation

As with any new venture, there are many risks that could cause Cacao Together to not achieve its objectives. The key risk factors and mitigation strategies that I have identified are:

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Key Risk Factors	Mitigation Strategies
Insufficient funds to launch venture.	Approach multiple granting agencies. Use personal networks to find funders.
Lack of demand for product, insufficient product sales.	Shift resources to marketing
Withdrawal of key partners (at cafe or otherwise)	Create incentives for partners to stay involved
Issues with cacao pulp processing: Lack of interest from farmers or food safety issues	More intensive research and capacity building on the ground. Scale slowly.

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Conclusion

Sustainability programs in the cocoa industry often try to address issues with a single solution, such as productivity, without considering that agriculture has many more functions than commodity production alone. The specialty chocolate industry argues that the answer to more sustainable supply chains is by de-commodifying cacao and through “direct trade” relationships. It’s true that farmer incomes can be increased through quality improvements but it is not clear exactly how quality intervention can benefit the vast majority of farmers who don’t grow specialty cacao who still must operate within the commodities market. A much better model for sustainability can be found in a livelihood framework that measures asset building and increased capabilities through value chain interventions as indicators of well-being. An example of building assets and strengthening relationship between value chain players can be found in the livelihood model of the Kuapa Kokoo cooperative where members are also share holders in a finished chocolate product called Divine Chocolate. It is this model that has been an enduring source of inspiration for me and I use it to inform my social venture project, Cacao Together. As a nonprofit, Cacao Together uses the revenues from sustainably sourced cacao juice to finance interventions that grows social, human and physical capitals in order to create an environment in which livelihoods can flourish.

Appendices

Appendix 1



Appendix 2



Appendix 3



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Appendix 4) Ratings used to calculate average scores shown in Figure 4.

Certifiers and Corporate Sustainability Initiatives	Human Capital	Social Capital	Natural Capital	Physical Capital	Financial Capital
UTZ	3	6	4	2	3
Rainforest Alliance	3	6	4	2	3
Fair Trade (FLO)	4	6	4	2	4
USDA organic	4	5	5	2	3
Cocoa Action (World Cocoa Foundation, etc)	4	3	3	2	3
Cocoa Life (Mondalez)	4	3	3	2	3
Average	3.67	4.83	3.83	2.00	3.17
Craft Manufacturers	Human Capital	Social Capital	Natural Capital	Physical Capital	Financial Capital
Askinosie Chocolate	4	3	5	3	5
Dandelion Chocolate	4	3	6	3	6
Equal Exchange	5	7	5	3	5
Felchlin Chocolate	4	5	5	3	6
Guittard Chocolate	4	5	5	3	5
Madecasse Chocolate	4	4	5	6	5
Taza Chocolate	4	6	6	3	5
Theo Chocolate	4	5	5	3	5
TCHO Chocolate	4	6	5	4	5
Valrhona Chocolate	4	5	7	4	6
Zotter Chocolate	4	6	5	2	4
Average	4.09	5.00	5.36	3.36	5.18
Exemplar	Human Capital	Social Capital	Natural Capital	Physical Capital	Financial Capital
Divine Chocolate	7	8	5	6	8

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