Promoting Sustainable Food Systems

Through Impact Investing

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THE SPRINGCREEK FOUNDATION

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Foreword

Opportunities to invest in domestic sustainable food and agriculture have grown dramatically in the last decade. There now exists a vibrant ecosystem of investors, philanthropists, policy makers, food producers & processors, and advocacy groups, all in tireless pursuit of a solution. At one time, our land abounded with flourishing agrarian communities. These were not without failure and strife, but the underlying structures and intentions were pure. Human intelligence evolved these concepts of cultivation, nourishment and growth into the financial world, developing communities and tools to further our prosperity.

We now have the history and the experience to see how people, planet and profit interact; this perspective yields both insight and profound responsibility. As investors, it is incumbent upon us to leverage our unique role in the marketplace, and position the investment industry for positive social change. A focus on sustainable food and farming is as essential as nourishment is to life. It integrates air, water, land, and communities. Our health and welfare as humans – and for all life on the planet - demand that we now carefully and expertly wield our innate intelligence, from the most basic to the most complex. We must link "philanthropy" - our love for our own kind - to our propensity for industry and innovation. Our instinct to not only survive, but also flourish, has yielded intelligence and tools that are now called to action.

Promoting Sustainable Food Systems through Impact Investing *aims to provide a framework through which investors can play a critical role in the establishment and maintenance of regional sustainable food systems in the United States. These new systems will improve our air, our water, our land, and the health of our selves and our communities. However, investment opportunities in these systems must be designed - they will not manifest without our purposeful action. While there are early signs of infrastructure - products and ideas with the potential to create more opportunities and greater impact - the market remains vulnerable: in order to attain scalability, all stakeholders must uphold a common goal.*

The growth in demand for sustainably produced, processed, and distributed products is gaining momentum, making investments in sustainable food and agriculture a viable option for impact investors. The diversity inherent to the field of food and agriculture lends itself ideally to a range of interests and risk appetites. Pioneering investors are evolving the field through the use of new, multi-layered vehicles that create measurable social and environmental impact. But at The Springcreek Foundation, our mission is not to grow the field of investment opportunities; it is to leverage investments as a critical tool towards the reform of the current, industrialized food system, and lead the way to sustainable, regional food systems that provide healthier food, air, water, land, people, and communities.

We invite you to exercise your right to choose – as a consumer, investor and citizen of the world. The simple insistence upon fresh, uncompromised, nutrient-rich food produced in harmony with the environment represents the most likely chance of a healthy and prosperous life for ourselves, our children, and future generations.

Maud-Alison Long

President
The Springcreek Foundation

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About The Springcreek Foundation

The Springcreek Foundation (TSF) is a private foundation founded in 1994 by the Corning and Long families to continue and expand their tradition of philanthropy and responsible investing. The foundation now strategically leverages the family's six generations of expertise in investment management to enhance their charitable impact. While Donor Advised Funds support the expression of individual philanthropy and collaborative grant-making, impact investing is now the foundation's core strategy to advance a conservation economy.

Representing the sixth generation of family stewardship, Maud-Alison Long, President, and Marlis Corning Jansen, Vice President, have lead the foundation to a timely albeit lofty goal: Food System Reform. As mothers and community members, Ms. Long and Mrs. Jansen saw a growing need for both education about and access to healthy food in Marin County and beyond; this awareness coincided with the realization that our county also boasts some of the most abundant food and food education in the country. But the question remained of how could such abundance represent, in actuality, such a tragically broken system?

Executive Summary

"...why is it that an industrialized system, deeply dependent on fossil fuels and chemical treatments, is promoted as viable while a much less damaging one is rubbished and condemned as unfit for purpose?"

Prince of Wales, speech at Future of Food Conference, Washington D.C., May 2011

Report Objectives

True to its mission of supporting a conservation economy, and conscious of the tremendous public health, social, environmental, and economic implications of industrial agribusiness[1], TSF has endeavored to develop a framework through which one can better understand the landscape of current and emerging impact investing opportunities which will ultimately aid in the reform of the domestic food system[2]. This report is designed for the investment community: foundations, funds, high net worth individuals, financial advisors, wealth managers, family offices, institutional investors, and other stakeholders. The primary goal is to inform impact investors about the current state of this industry, and to support impact investors' capacity to catalyze high-impact social, environmental and economic change.

Why is this research needed?

The topic of sustainable food and agriculture has triggered mounting interest from impact investors in recent years. Some investors have even begun to explore opportunities in sustainable food systems by investing in innovation or green consumer products. Yet the flow of capital into this investment area remains disappointingly low, and appears arbitrary. Until recently, sustainable food systems funding has been limited to insufficient government and charitable support. Donations and grants have played - and will continue to play - a critical role in the reform of the existing food system; however, a comprehensive food system reform requires the participation of for-profit investors. Given the paucity of currently available data relevant to impact investing in sustainable food systems, this report aims to provide a better understanding of the emerging investment opportunities in the sector by identifying current trends and featuring examples of high-impact investment opportunities.

A Case Study Approach

Profiled below are case studies of high impact investment opportunities collected from investors with diverse investment goals. TSF has developed a framework to use when considering an investment opportunity to ensure it has high impact potential.

Investments that target these leverage points will achieve greater and faster impact.

This framework applies a lens deduced from the work of Roots of Change (ROC)[3], a California-based nonprofit sustainable food systems advocacy group, whose mission is to transition California to a sustainable food system by 2030. After building consensus among 35 stakeholders in our current food system, ROC created a systems dynamic map that demonstrates critical points of leverage that will produce the most significant and measurable progress toward sustainability (see Methodology section on page 20 for description of ROC's systems dynamic map). Thus, investments that target these leverage points will achieve greater and faster impact. By further refining and tailoring the work of ROC, our framework offers investors a basis for discussion and implementation of impact investments that support more sustainable food systems. Furthermore, as represented in the Investment Allocation Matrix in page 21, the case studies have been organized by the issue area(s) they address. The five (5) main issue areas are: air, water, land, health and community development. The social, environmental and financial impact of each investment opportunity is described thoroughly in each case study.

We acknowledge that food and farming is a dynamic space; therefore welcome your feedback for inclusion in future publications, and invite you to collaborate with us in moving the sector forward.

What is Impact Investing?

Impact investments work like any other investment, with just one added measurable component:

the Impact.

By engaging the private sector in an investment area that traditionally has been limited to philanthropy, *impact investing* aims to provide environmental, social and governance solutions at scale.

It has been designed to leverage significant capital and expertise against the world's most pressing challenges. *Impact investing*, also referred to as *social investing*, *sustainable investing*, *mission investing*, *and impact finance*, has been defined as ***"any investment activity that purposefully generates measurable public benefit"*** [4]. The goal of *impact investments* is to significantly contribute to poverty alleviation, social growth, economic development and environmental preservation. Traditional impact investors are high-net-worth individuals, institutional investors, corporations, religious groups, and foundations; however due to the increasing awareness and expanding investment options, some retail investors have recently begun to participate in this growing industry. Investments are typically made through an investment vehicle such as an investment fund; sometimes, however, they are made directly to organizations. *Impact investments* work like any other investment, with just one added measurable component: the Impact.

As with the investment industry at large, *impact investments* constitute a vast marketplace with diverse financial products, ranging from a cash deposit in a community bank that finances local sustainable businesses in Vermont, a debt loan to a social college fund that finances low-income students in California, a real asset investment through a fund working on restoring ranch and farm land in Montana, or an equity investment in an initiative to provide affordable home solar power systems in New Orleans. *Impact investments* not only provide the foundation for a more sustainable and equitable economy, but they also allow investors to diversify greatly across impact areas, geographies and asset classes; the trademark of a fiscally responsible investment profile.

Central to impact investing is the motivation and intention of the investor. The terms *Impact First / Financial First* investor were coined by the Monitor Institute in 2009. According to this research group specializing in social change, *Impact First* investors seek to optimize social or environmental return with a financial floor; *Financial First* investors seek to optimize financial returns with an impact floor[5]. The question is, if there were no impact, would that particular investor still invest? If so, he/she is a *Financial First* investor; if not, he/she is an *Impact First* investor. Some investors may have wide-ranging portfolios that touch on different approaches in different investments. Thus, the same investor may have deals that fall into both *Financial First* and *Impact First* categories, depending on their primary motivation for that particular deal[6].

What Are Sustainable Food Systems and Why Are They Important?

Sustainable food systems reflect a structure and process that create a close link between the producers and the consumers of food, such that the health of people, place, planet & profit are optimally restored and supported. Sustainable food systems include all the major points along the food supply chain (production, processing, distribution, and consumption) and have the potential to solve many of the world's pressing social, health, and environmental challenges.

A broken food system in the US and around the world has significantly contributed to five (5) important "tragedies": environmental pollution, water pollution, land and soil degradation, public health damage, and community collapse. The pollution of the environment and the water is a serious matter. According to a recent study from Scientific American[7], agribusiness is responsible for one third of human-induced global greenhouse gas emissions. Especially alarming are the levels of nitrogen and methane emissions. Current practices for food production, processing and distribution use technology powered by gasoline, diesel and natural gas, which results in air and water pollution, depletion of soil fertility, and a reduction of species diversity. As indicated by the National Sustainable Agriculture Information Service, on average, produce in the U.S. travels 1,300 – 2,000 miles between farm and consumer.

Similarly, human activities have degraded or destroyed the quality and productivity of soil. The amount of arable, productive land is decreasing at alarming rates. According to the World Resources Institute, the main causes of soil degradation in the US are agricultural activities, overgrazing and deforestation. The majority of today's farm owners don't have access to the capital needed to maintain their permanent cropland. As a result, fertile land is being sold to developers and large agribusinesses that use environmentally degrading practices.

Current food production and processing practices have created a record number of cases of obesity and cardiovascular diseases in the United States. According to PolicyLink, a national research and action institute advancing economic and social equity, 30.5 percent of children in ages 10-17 are obese in the United States. Similarly, a recent article in the Journal of the American Medical Association predicts that a child born since the year 2000 has a one-in-three chance of developing diabetes; minority children have a staggering one-in-two chance.

Many low-income neighborhoods do not have access to fruits, vegetables, whole grains and the other foods that compose a healthy, well-balanced diet; instead communities are populated by fast food restaurants and convenience stores selling high-fat, high-sugar, highly processed and chemically preserved foods. Fresh food is either not available or not affordable. These areas are known as food deserts[8]. Approximately 23.5 million Americans are living in food deserts, most of which exist in urban areas [9].

Community development and livability have also been severely impacted by the current food system. The large scale, resource-intensive practices of agribusinesses and corporations are squeezing small farms and other small food-related businesses out of the market. This "community collapse" is a significant concern in farming and food production, as it has resulted in sluggish rural development, a lack of incentives for small farmers, and alarmingly few available farmers. In the US today there are approximately 2,000,000 farmers - less than 1 percent of the population [10]. Half of these farmers are likely to retire in the next decade, and very few young people are entering the industry to take their places. Farming is extremely physically demanding, and young people have little to draw them to the work. According to a USDA study, the percentage of the food dollar that stays on the farm has been in decline since the 1950s and is still very low, and most small- to mid-size farmers cannot survive with on-farm income only (*Fig. 1*).

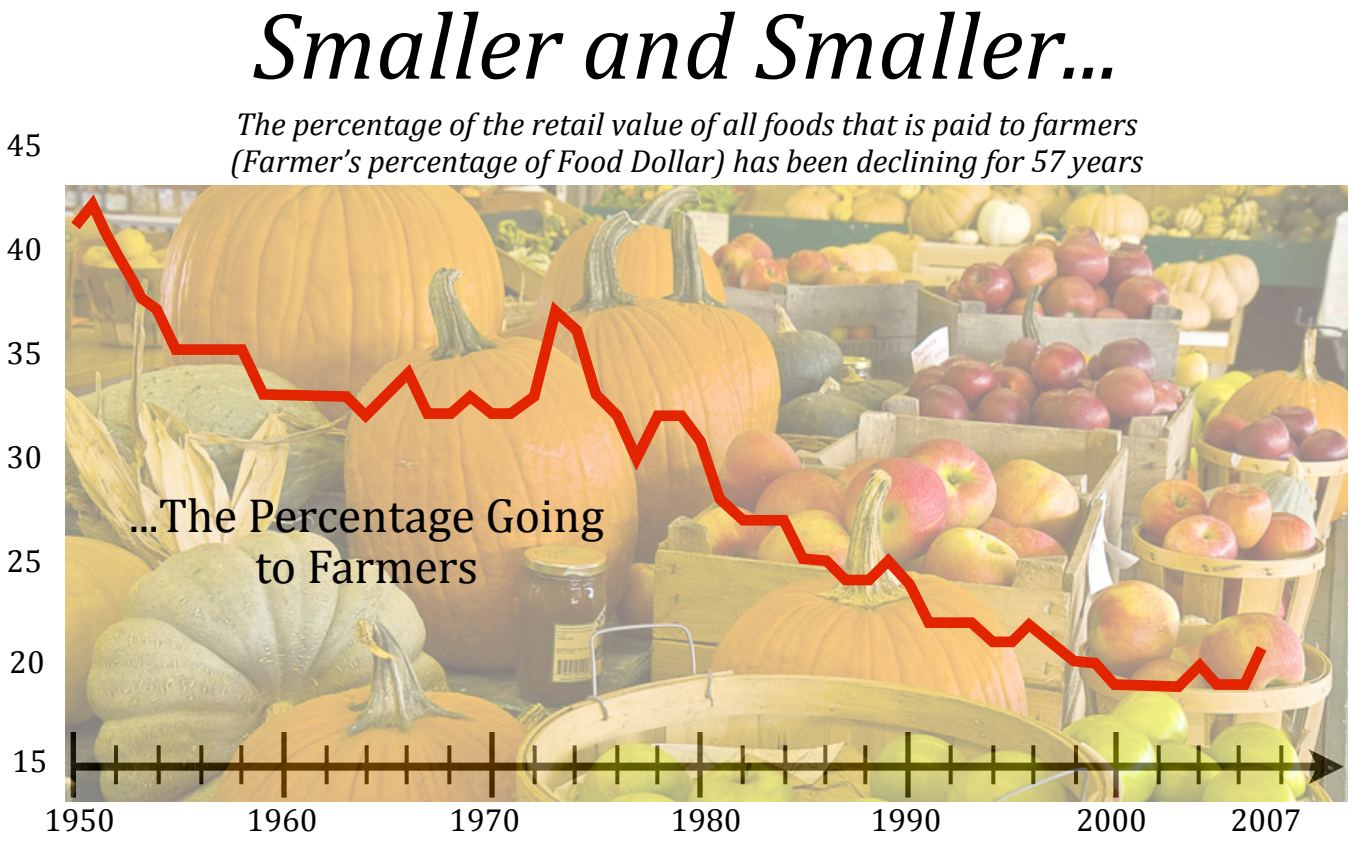


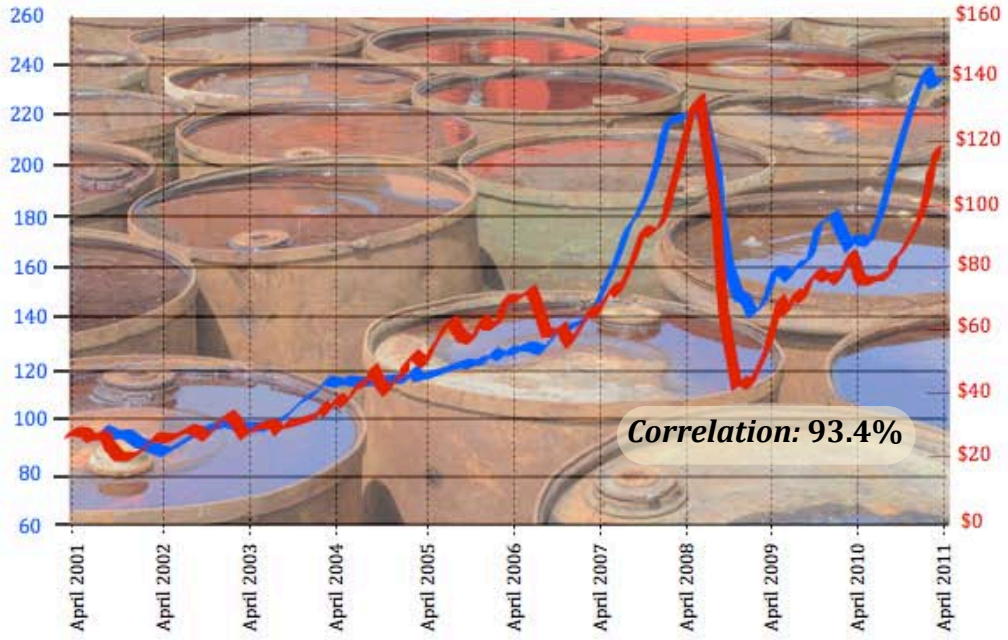
Figure 1

Regional sustainable food systems are a powerful catalyst of local economy. According to the New Economics Foundation in London, every dollar spent locally generates twice as much income for the local economy. When consumers buy imported goods, money leaves the community at every transaction.

Yet another consequence of the industrialization of food production and community collapse is the rise in food prices. Between 2006 and 2008 average global food prices increased by 217 percent for rice, 136 percent for wheat, 125 percent for corn and 107 percent for soybeans, posing a serious threat to food security[11]. According to the USDA, in 2009, 14.7 percent of U.S. households were food insecure intermittently during that year, and 3.1 million Californians (about 10 percent) did not have enough to eat[12]. Worldwide, approximately 852 million people are chronically hungry due to extreme poverty[13]. The International Medical Corps reports that, global malnutrition has a higher death toll than HIV, tuberculosis and malaria combined[14]. Soaring food prices, which ultimately lead to food insecurity, are mostly due to rising oil prices (*Fig. 2*); other contributing factors are global population growth, climate change, loss of agricultural land to residential and industrial development, growing consumer demand in China and India, and increased allocation of crops to biofuel production.

World Food & Oil Prices

April 2001 to April 2011



This graph comes from the web site of Paul Chefurka and is derived from easy to get, publicly available data from the UN Food and Agriculture Organization and the US Energy Information Agency.

Figure 2

"We do not fully comprehend that food production is a biological activity and that healthy food is the key to healthy people. Farms and ranches cannot successfully operate as assembly lines for long... we cannot produce food like it is some sort of input for a machine. Food is not gasoline…The national health crisis reflects our misunderstanding of food. Much of the climate change, water and other pollution crises reflect our misunderstanding of agriculture. So I am most concerned with how we think and how we create systems based on that thinking."

Michael Dimock, President of Roots of Change[15]

We have entered an era in which the world must produce more with less. As the population is expected to reach 9 billion by 2050 – with a projected 70 percent urban demographic[16] - the need for effective food production, processing and especially distribution has intensified. Food systems must become more environmentally sustainable and feed more people. Moreover, an increased purchasing power of a growing middle class requires higher quality and resource-intensive foods, such as meat and dairy. Experts estimate that annual meat production must rise by 75 percent – to 470 million tons – by 2050. Simultaneously, climate change affects agriculture - changing rainfall patterns and fluctuations in temperature affect crop yields.

Current food and agriculture practices, however, have left the planet in a true systemic food crisis. In an effort to dispute the claim that chemical-intensive agriculture is the answer to feed the world, experts at a recent UN panel created the term agroecology. According to these experts, using agroecological techniques - agroforestry[17], biological control of pests and diseases through the use of natural predators, water harvesting methods, intercropping, green manure cover crops, mixed crops, livestock management, etc- produces sufficient amounts of food while polluting less.[18]

Regional sustainable food systems will ensure, among other things, the long-term productivity and management of existing natural resources, improved public and environmental health, economic viability, community development, food security, job creation, and mainstream awareness and education.

What are the Challenges of Investing in Sustainable Food Systems?

At first glance, investors in sustainable food systems are faced with the traditional challenges characteristic of impact investing, which include a vast array of investment options across asset classes, impact areas, and return profiles, as well as lack of deal flow and a limited track record. And, by nature, impact investments in sustainable food and agriculture bear additional challenges. Unpredictable and inclement weather creates inherent risk. In the Midwestern cornbelt, for example, 49 straight days of rain brought the Mississippi River up to record levels, creating one of the largest floods in history. River traffic was halted for 600 miles, 15 million acres of farmland in eight states were flooded, and 36,000 people were forced from their homes, all resulting in billions of dollars in damage.

Another impediment to investments in this space is the current agricultural policy in the United States. The existing agricultural industry is comprised of a few disproportionately large companies with excessive political influence and leverage. As mandated by the 2008 Farm Bill, agribusinesses were the recipients of approximately $43 billion (14 percent of the total 2008 Farm Bill) in subsidies for rice, cotton, corn, soybeans and other commodity crops. These subventions intend to supplement the income of farmers and others involved in large-scale production of crops by insuring farmers' jobs and profitability, yet current agricultural policy has a lasting negative impact on both domestic affairs and the world market. Scale in agribusiness is attained by intensive use of land, water, fossil fuels, pesticides, herbicides, antibiotics and genetic technology. Such practices reduce the quality of the product; increase the health risks of the consumers, the farm workers, and the environment; contribute to ecological destruction; and breed wealth inequality. In addition to that, agricultural subsidies have lasting repercussions on global trade, making it impossible for unregulated countries to bring their products to the market place. This market distortion both illustrates the harmful potential of a complex supply chain from seed to table, and emphasizes the importance of an immediate transition to a sustainable food production economy.

The transition to a sustainable food system is a systemic issue and must be treated as such. Policy advocacy groups in the US denounce the term Farm Bill as a misnomer, as, they suggest it should be called the "Food and Farm Bill". By limiting the name to "farm", it is easier to maintain subsidies that benefit the large-scale intensive farmers and it ignores that the largest portion of the bill in dollar terms (approaching

$80 billion/year) is for nutrition assistance programs that provide financial support to low-income people for the purchase of food. Policy reform organizations play a critical role in influencing Congress, state and local governments, and designing a road map to new food systems.

If we are to advance toward a more sustainable system, consumer behavior must change. An overall shift in consumption habits is critical and can only be achieved through education and building awareness. This change is happening rapidly when it comes to organic food[20]. According to data from the Organic Trade Association, sales of organic food have increased by 20% every year since 1990, and three-quarters of the nation's grocery stores now carry at least some organic food. Simultaneously, Locally-Grown food is reportedly the fastest growing segment in grocery, and the number of farmers' markets nationwide has tripled since the mid 90's[21]. However one of the main impediments to behavior changes in consumers is relatively high price of sustainable/ organic fresh food. Due to subsidies and the externalization of social and environmental costs by large scale industrial agriculture, small and mid-size organic producers cannot compete solely on price. One of the objectives of the Food System Reform is to make fresh and nutritious food more accessible and affordable for everyone.

The unpredictable aspects of the food system outlined above– weather, agribusiness, policy, consumer behavior - increase the perception of risk and deter impact investors, who instead choose more established impact investment areas - clean energy, green real estate and other conservation economy opportunities. While we do not claim to have the solution to these issues, we humbly seek to help organize the fragmented industry by:

A) offering a summary of current trends and opportunities in investments in sustainable food systems,

B) creating a framework to use when considering investment opportunities, and

C) providing examples of existing investments that could lead to a substantial impact on the sustainable food and agriculture value chain.

Main Findings

Foundations and governmental organizations have greatly contributed to the restoration of a sustainable food system in past decades; however, charitable donations alone do not have the capacity to solve critical social and environmental challenges at scale. In order to achieve a systemic transformation in the food system, grant dollars must be combined with investment dollars.

Many US investors have begun to explore impact investing through domestic community development projects or microfinance in developing countries. Very few investors have ventured into the sustainable food and agriculture realm. Compared to other impact investments themes, sustainable food and agriculture is in a nascent stage. However, our research revealed that in actuality, investment opportunities in sustainable food and farming are abundant, and suitable to diverse investment preferences and risk appetites. Following is a summary of TSF's main findings on domestic investment opportunities in sustainable food and agriculture.

Current Farm Financing

Most agriculture is financed by an agriculture credit system that was established in the mid-1900's. In 2010, the U.S. banking industry held $127.4 billion in farm loans[22]. Most farms have a line of credit or a production loan secured against their land; it is used in the first months of the calendar year to prepare the soil and plant seeds, then repaid after the harvest, when revenue from sales have been realized. An impact investor might fear competition from this current system, since production loans are familiar to mid- and large- scale farmers who have used them for generations. However, Michael Dimock, President of Roots of Change, reminds us that "the criteria for such loans are less favorable to small, beginning and organic farmers. Organic farmers are often seen as more risky because they do not use chemicals and other practices that are seen as reducing the risk of a failed harvest". Consequently, their interest payments are higher, and often their loan is denied upon application.

Opportunities for Accredited and Retail Investors

For most investors, a fund is one of the only vehicles available for investment in sustainable food and agriculture. While the number of funds is still limited, it has grown significantly in the last four years. We found that as of the date of this report, about forty (40) funds are dedicated to sustainable food systems investments. Those funds are mostly small/regional loan funds, green consumer products private equity funds, or ranch and farmland real asset managers. Some of them are certified Community Development Financial Institutions (CDFIs) and Community Development Entities (CDE), and offer New Markets Tax Credits[23] to their investors.

Currently nine (9) of the funds researched allow investments from non-accredited investors. One of them is Equity Trust, a small revolving community loan fund based in Turners Falls, MA. The fund makes loans of $5,000 to $200,000 for land acquisition, agricultural improvements, farm equipment, and community land trust housing, across the nation. It also provides financing for educational programs that showcase sustainable agriculture and local food production. With a minimum investment of $1,000, a non-accredited investor can make a loan to Equity Trust. The minimum term is 1 year and it offers a return up to a rate approximating that of money market accounts or CDs.

Expanding the Horizons....

A credit union specifically designed for small, local, sustainable farmers is one potential solution for filling the financing gap facing this new generation.

This Sustainable Agriculture Credit Union (SACU) would help supplement the many loan funds being formed by:

a) tapping the vast domestic deposit markets ($12 trillion +), and

b) offering mainstream financial products tailored to the sector.

One way to charter a credit union is to organize it around one or more membership organizations. To this end, Scott Budde, a Managing Director in the Investment Management division of TIAA-CREF, has been collaborating on a volunteer basis with NOFA / Mass, the Massachusetts Chapter of the Northeast Organic Farming Association, to explore this possibility.

To date, Scott has done a survey of NOFA / Mass members and received preliminary approval from the NCUA (National Credit Union Administration) for the idea. If chartered, such a SACU could very possibly expand to serve members of other sustainable agriculture-related organizations.

Catalyzed Investor Interest

In general, there has been increasing interest among the impact investment community in sustainable food and agriculture investments. Growing participation in conferences like Agriculture 2.0 and Slow Money Alliance, as well as fast expanding groups of Food Systems Funders demonstrate this interest. Entrepreneurs are gaining exposure at conferences and trade shows, and an ecosystem of investors, funds, and investees is emerging. When interviewed, Mike Yohai, founder and CEO of CityScape Farms, a urban agriculture initiative focused on growing fresh food on the roofs of commercial buildings in San Francisco, mentioned that a couple of years ago, when he began fund-raising for his organization, it was difficult to find investors interested in the space, but lately the number of interested investors has increased tremendously. Opportunities for institutional investors are still limited due to the relatively small size of most of the funds and the lack of the risk-adjusted returns sought by institutional investors.

Innovative Investment Opportunities

Some investment vehicles - the Carrot Project, a non-profit focused on providing financing and technical assistance services to small and mid-sized farms in New England and New York, for example - offer guarantee investments to all investors by using an innovative financial model that mobilizes idle capital to guarantee loans. This model has been very successful in microfinance as a proven international poverty reduction strategy. The guarantor's investment is deposited in an FDIC-insured account and used as collateral for a farmer to secure a loan. This leverages passive capital of high net worth individuals and fosters lending to small-hold[24] farmers.

The Slow Money Alliance is building national and local networks that are facilitating investment in small food enterprises. Slow Money is a rapidly growing network of local food investors and entrepreneurs, whose mission is to steer significant new sources of capital to local food enterprises, small organic farms and local food systems, and to expose the disturbing relationship between capital markets and soil fertility[25]. The Slow Money model is a highly decentralized one, with 12 chapters or "investment clubs" and more than 2,000 members of the Slow Money Alliance across the US and Europe. Each chapter becomes an expert in the region it covers. They source their own deals and deploy their own capital. The Slow Money Alliance also hosts national gatherings, in order to share deals and learning between regions and promote broader awareness about place-based, local food investing.

Sustainable Forestry: How More Impact Could Lead to More Return

Ecotrust Forest Management, a forestry fund manager based in Oregon, manages Ecotrust Forest LLC ("Ecotrust"), a fund dedicated to the principles of ecological forest management. These principles emphasize diverse, uneven-age forests with clean water and air, and bountiful wildlife habitat. Established in 2005 and with $29 mil asset under management, Ecotrust is an open perpetual forest land investment Fund with four properties in the Pacific Northwest. Their forests are managed for production of high-quality timber and for carbon, habitat, and job creation. The properties are certified by the Forest Stewardship Council (FSC).

Ecotrust gives investors the opportunity to own high-quality timberland and gain exposure to emerging ecosystem service markets. This model of forestry not only improves forest health, biodiversity, and carbon storage, but monetizes these public benefits through the sale of carbon credits, conservation funding, and New Markets Tax Credits. As these markets mature (particularly carbon), Ecotrust (intends to derive increasing value. In other words, greater impact actually improves the financial results to the extent that the markets that monetize the impact are continuing to mature and expand.

Minimum investor participation is $1 mill. The fund targets 6% IRR. Some of the social and environmental benefits of the investment are: increased carbon sequestration, improved species diversity, job creation, properties open for non-motorized recreation, increased water quality, accessibility and distribution.

"The goal is to create communities where children are healthy, safe and ready to learn – because that's where health happens."

Tina N. Castro, Director of Mission Related Investments, The California Endowment

Regional Public-Private Partnership Initiatives

In the last few years, local governments have partnered with private initiatives to revitalize certain low-income, underserved areas and bring in more supermarkets and fresh produce stores. This is a viable, effective, and economically sustainable solution to the problem of limited access to healthy foods, and can achieve multiple objectives: improve the health of families and children, create jobs, and stimulate local economic development in low-income communities.

An example for this type of initiatives is the California FreshWorks Fund (CAFWF), a new public-private partnership loan fund designed to finance grocery stores and other forms of healthy food retail and distribution in underserved communities throughout CA. It is modeled after the successful Pennsylvania Fresh Food Financing Initiative and developed to align with the National Healthy Food Financing Initiative (HFFI). The CAFWF has been developed through an innovative collaboration of The California Endowment with partners representing industry, philanthropy, government and private investors. The target fund size is $200 million and it is capitalized with a combination of debt and grant dollars and structured to leverage alternative forms of financing like New Market Tax Credits as well as SBA and USDA Business and Industry guarantees. In addition to that, one of the investors in CAFW, the Calvert Foundation, has created the CAFWF Initiative Community Investment Note that will provide a platform for investments in CAFWF of as little as $20. Other similar public-private initiatives are the New York Healthy Food and Healthy Communities and, as mentioned above, the Pennsylvania Fresh Food Financing Initiative.

What's New:

VSJF Flexible Capital Fund

The VSJF Flexible Capital Fund L3C (a mission-based, low profit, limited liability company) provides Vermont companies in value-added agriculture, forest products, renewable energy and waste management sectors with flexible risk capital to grow, create quality jobs, preserve working landscapes, build healthy food systems and ensure a renewable energy future. By means of investment instruments such as subordinated debt, royalty financing and warrants, the VSJF Flexible Capital Fund provides flexible and patient capital to match a company's funding needs. Royalty financing is not readily available in Vermont for smaller, growth stage companies in the natural resource sectors – and the Flexible Capital Fund is a first mover in this area.

The Flex Fund's motivation is to finance those companies that are moving Vermont and the region towards food and energy independence, and working to ensure the health and resilience of communities and natural environment. These growth companies need more choices of flexible financing across the risk continuum to grow and prosper.

Investor equity minimum and conditions: From Accredited Investors: $100,000 for organizations; $50,000 for individuals. Smaller investments can be accepted at the Fund's discretion. 10 years with option to renew for 2 one-year terms.

Fair Food Fund

The Fair Food Fund (FFF) is being designed to fund ventures that connect sustainable, New England farms with new market opportunities. The FF Fund will focus broadly on the New England food system while exploring the use of a variety of investment vehicles, including equity, debt, and blended investments (i.e., convertible debt). In addition, the FF Fund will explore opportunities to create win-win partnerships with USDA and other impact investors that have an interest in redesigning a sustainable New England food system.

The purpose of the Fair Food Fund is to provide financing and advisory services to new and existing New England based food hubs—entities that provide aggregation, processing, storage, distribution, and/or marketing services designed to assist organic and sustainable New England farmers in accessing new market opportunities. We want more small-scale farms to be economically viable businesses by helping to rebuild the regional food distribution infrastructure.

If the planning phase is successful, The FF Fund will be capitalized with approximately $3 million and it may provide equity, debt, or blended financing.

Food Hubs and Local Urban Distribution

In response to the "locavore" or "eat local" movement, wholesale consolidators and distributors of local food have sprouted up in high-density urban areas, offering a variety of products that might include: produce from local family farms, artisan meats and cheeses, sustainable seafood, prepared meals and fresh-baked breads. These distributors actively coordinate supply chain logistics, such as identifying markets for producers and coordinating distributors, processors, and buyers. Some have permanent facilities for food storage, while others work merely as virtual food hubs. Most of them work with a customer subscription model, online platforms and timely home delivery,

essentially bringing the farmer's market to people's homes. These services also increase consumer awareness about the benefits of supporting locally grown and prepared foods. By delivering their products within a couple of miles instead of a couple thousand miles, local distributors are changing the economics of food. They are putting more money in the pockets of local farmers, rather than the already deep pockets of the petrochemicals and packaging companies. Such initiatives expand market opportunities for producers, create jobs in rural areas, avoid unnecessary carbon emissions and increase consumer access to fresh healthy foods.

They also have the potential to reach underserved areas and food deserts. Funds like RSF PRI Fund and PV Grows, as well as some angel investors and investors from the Slow Money network, have begun to invest in these efforts. The further development of local distributors is vital to the establishment of regional food systems in urban areas. There are examples across the nation of companies addressing this need: Organic Renaissance in Athol, MA; Common Market Philadelphia, PA; Farm to Family Naturally, in St. Louis, MO; Greenling, in Austin and San Antonio, TX; and Spud.com in Portland, San Francisco, Los Angeles and Seattle.

By delivering their products within a couple of miles instead of a couple thousand miles, local distributors are changing the economics of food.

Investment Opportunities in Sustainable / Organic Farmland

In the US, one million acres of farmland are lost every year[26]. Its preservation through restorative, diverse and distributed farming practices is vital. For many years investors' attention was focused post-farm gate[27], however with the recent creation of new investment vehicles and the rising consumer demand for organic food, investors now have the option to invest in high value farmland. Jeffrey Steen, a managing partner at Holon Investments, an asset management company with expertise in organic cropland and citrus farms in southern San Joaquin Valley, CA, describes investment in farmland as one of the safest investments: "in the last thirty years farmland has performed as well as the S&P 500 with half the risk". Holon Investments is one of the recently formed asset management companies running individual investment accounts for accredited investors.

While these types of investments require a large initial investment (in this case min. investment is $750,000), if the asset is managed well, it can provide attractive returns, capital preservation and portfolio diversification. Through such vehicles, investors can buy and hold land, earning dividends from leases to a farm enterprise, and proceeds from crops/livestock sales and from the sale of conservation easements. Investments in farmland are not tied to a private equity timeline of 10 years, allowing for more flexibility and longer investment periods. Some companies forecast an annual rate of return of 8-13 percent for crop appreciation only; whereas land appreciation averages 2-3 percent per year.

Layered Investment Structures

Occasionally, *Financial First* and *Impact First* investors will collaborate in what we have come to call layered structures. When capital from *Impact First* and *Financial First* investors is layered, differing requirements, motivations and expectations are implied. In such a structure, the *Impact First* investor will accept below market rate-return, which enables *Financial First* investors to invest in other tranches[28] of the investment earning a market rate of return. This investment option is beneficial to both investors, as it allows *Financial First* investors to achieve market rate returns, while *Impact First* investors leverage their investment capital to achieve greater social and/or environmental impact. Blended co-investment structures have been deployed successfully in an effort to build sustainable food systems. The Sea Change Investment Fund, LLC, a San Francisco-based fund investing in environmentally-preferable seafood companies, is capitalized by a $10 million Program-Related Investment (PRI) loan from the David and Lucile Packard Foundation, matched by a private equity investment. Private investors benefit from the leverage provided by the PRI, and the Packard Foundation achieves its conservation objectives through the supply chain improvements Sea Change helps its portfolio companies make. Moreover, Sea Change has invested alongside commercially oriented co-investors, who are supportive of its unique for-profit/philanthropic blended structure. Sea Change's co-investors include firms such as Sherbrooke Capital, BASF Venture Capital, and Emerald Ventures. Foundations and high net worth individuals have long been pioneers in sustainable food and agriculture investments. Their efforts are helping to accelerate change, and seed the next generation of sustainable food systems impact investment funds that will be suitable to *Financial First* investors.

Donor Involvement

While some initiatives in sustainable food and agriculture reach the necessary scale and efficiency to become self-sustaining, the continued grant support from foundations, development agencies and other donor organizations plays a very important role in the transition to a sustainable food system. By providing technical and financial resources, they act as the catalyst for eventual self-sustainability. In some instances, as seen above, donor organizations partner with for-profit investors, providing the safety net that investors need to take the plunge into the sustainable food and agriculture market. Without this risk-absorbing capital, a sustainable food system is not attainable.

Conclusion

The intricate and layered nature of a sustainable food and agricultural system makes for an equally complex investment landscape. The investments aren't always liquid; profits can fluctuate with weather, commodity prices and politics; and solid investments are a challenge to identify. In the emerging industry of sustainable food systems, institutional investors are constrained by the lack of structured funds, and retail investors still can't make cash deposit investments through their community banks into sustainable food systems.

Our government and the investment community must quickly devise new investment structures that will ultimately draw retail investors and institutional capital to sustainable food systems. Elizabeth Ü, the founder of Finance for Food, a nonprofit that educates food system entrepreneurs about different financing options, assisting them in identifying which are the most appropriate given their specific goals and values, mentioned in a recent interview that a critical developmental step toward a sustainable food system is the creation of a financial infrastructure that will move more capital to food businesses of all stages and at all levels of the food value chain. A robust financial infrastructure will ultimately attract an increasing number of diverse investors, encouraging individuals, institutions, foundations, traditional banks, and other financiers to allocate more capital to this emerging industry.

...investments in sustainable food systems can yield a higher impact, as each investment inevitably addresses social, environmental and economic change.

Investments in sustainable food systems are on its way to becoming a profitable enterprise. Financial risk is mitigated through diversification across asset classes, and use of multiple vehicles or direct investments in diverse investment areas. Arguably, investments in sustainable food systems can yield greater impact than in other areas, as each investment inherently addresses social, environmental and economic change.

Questions remain about how much and how fast investment opportunities in sustainable food and agriculture can scale without sacrificing social, environmental or financial impact. In the last decade, the sustainable food systems movement has gained some positive momentum through savvy consumers who demand healthy, sustainable products, and by forward-thinking funders who understand the need for systemic change. While the basic infrastructure still needs to be developed, and new investment vehicles need to be designed; impact investments in sustainable food systems are becoming a stable and sustainable alternative for investors. There is definitely room for investors to play a collaborative and critical role across the wide range of investment opportunities in the creation of sustainable food systems in the US. The Springcreek Foundation invites investors of all kinds to join us in our commitment to this burgeoning asset class.

"My money was just sitting around in the stock market. Nobody knows what's really happening in the companies they're investing in, and it just seemed too risky for me. Taking it all out and buying into something that people need, rather than what people want, is the safest thing I can do. With us being in a [period of] peak resources of every kind, I feel good about owning trees; the stock market goes up and down, while my trees are growing every day."

Yvon Chouinard, founder and owner of Patagonia Inc. and early investor in Ecotrust Forest, LLC

Case Studies

Methodology

The objective of this paper is to map the landscape of impact investment opportunities in the sustainable food system in the United States, and to help investors understand the sustainable food and agriculture investment market better through the examples of concrete case studies. Rather than present the investments through simply a financial lens, an impact filter is applied; only high impact investment opportunities were considered, regardless of the financial returns.

TSF has partnered with Roots of Change (ROC) to ensure an effective study of the landscape of impact investment opportunities. In order to promote a better understanding of the complexities of sustainable food systems, ROC used a comprehensive consensus-building process to design a systems dynamic map. ROC assembled 35 stakeholders, representing every step in the food chain (from farmers to investors to policy makers), to undertake three steps in an analytical process. First they described in detail the food and agriculture system from farm to table. Second, they diagnosed the patterns that are in place that create the ecological, economic, and health problems associated with the current conventional system. Finally, they determined what actions are required now to ensure the system will become sustainable by 2030[29].

The value and accuracy of the map is grounded in the common endorsement of its findings by all 35 participants. The roots of the endorsement reflected in how the process began. A mapping specialist started the process by creating individual maps for each stakeholder that documented their description of the reality of their unique business or organization. These findings of these 35 individual maps were integrated to form the full systems map reflecting the interlocking relationships and subsystems of the entire food chain. The result is a roadmap that illustrates the dynamics of different parts of the food and agriculture system, as well as a convergence in thinking around the leverage points that

Investment Allocation Matrix

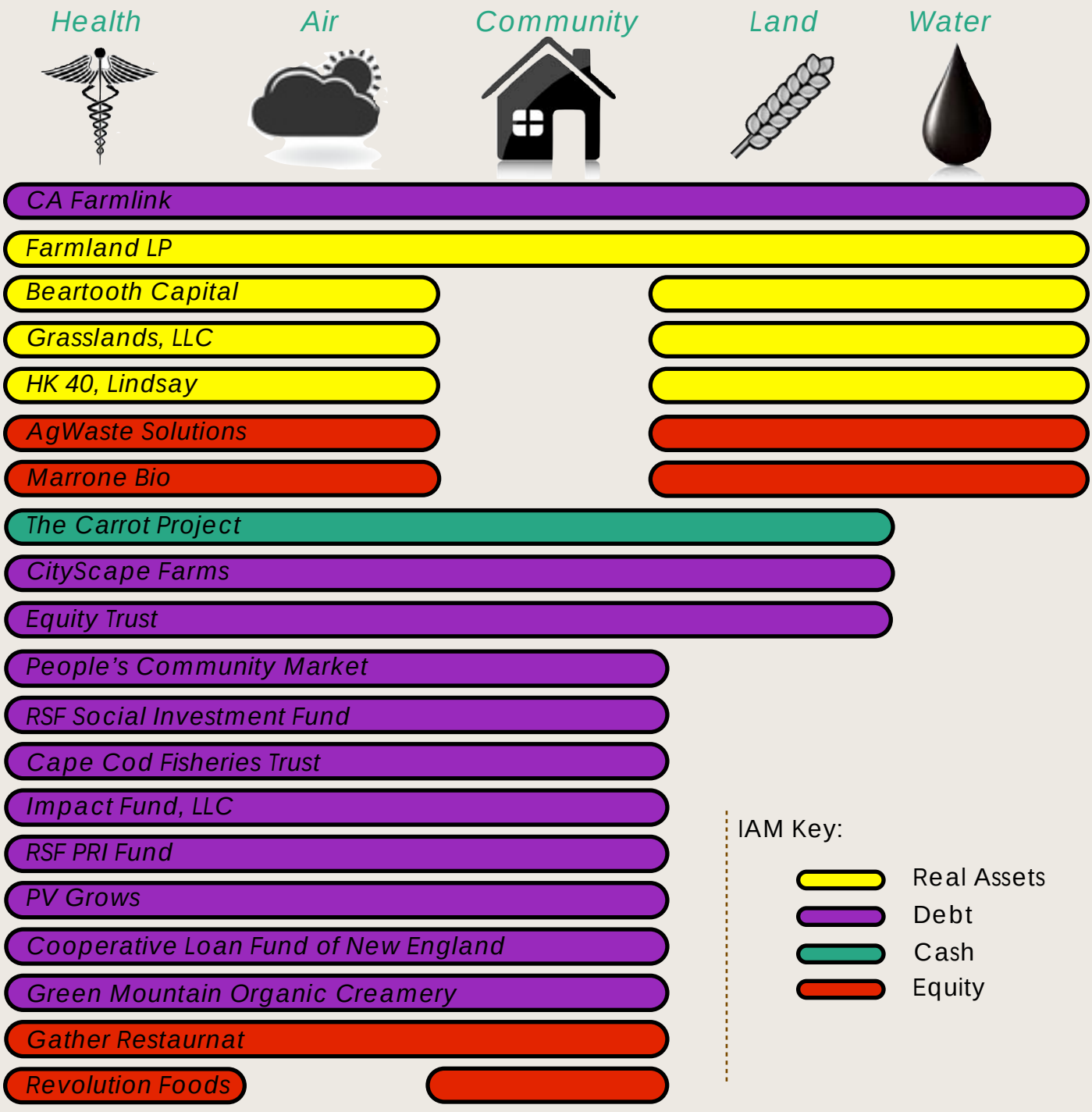


Figure 3

will produce the most progress toward sustainability (see map in the Appendix). TSF has used the main leverage points illustrated in the map to filter out low impact investments.

The following is TSF's own distillation of the map's main leverage points. The five (5) leverage points below are used as a baseline for sustainability impact measurement in investments in sustainable food and agriculture.

1. Restorative, Diverse and Distributed (as opposed to Depletive, Uniform and Aggregated) Production, Processing and Distribution.

Initiatives that promote the reform of the supply chain toward access to fresher, more nutrient-rich foods with a smaller carbon footprint, and that support the development of economies of scale. Some areas are:

- Management-intensive, restorative farming practices that foster soil fertility, fresh water and natural defense of crops against disease, pests and weather.
- Market-based solutions for measuring and optimizing water use, and remote sensing of groundwater levels and status in the fields.
- Small, less polluting food processors and packaging facilities with better natural resource management. This area includes producers of Green/Organic Consumer Goods. Concerns about health and the environment have lead to dramatic changes in consumer awareness and spending patterns; to promote and sustain these changes, the right products need to be available to the consumers. The steady increase in demand for products that fit a healthy lifestyle and address concerns about global warming make the consumer a critical driver of the food system's reform.
- Initiatives to reduce the distance food must travel and other ways to reduce carbon footprint.

2. Promotion of Regional Food Systems, Urban Agriculture and Food Gardens.

Initiatives that foster regional food systems, encourage people to source food as locally as possible, or support infrastructure that promotes sourcing locally. In urban areas, urban agriculture is beginning to flourish as a source of local food: backyards, rooftops, balconies, vacant lots, parks, roadsides, and urban fringes are all valid options as long as it does not use land that is better suited for other uses. Vertical hydroponic and aquaponic gardens that use solar and wind power are also options. Local food and urban agriculture stimulate agricultural education and consumer awareness.

3. Producer Education & Support.

Initiatives that provide business resources and technologies to existing producers, and promote fair compensation, increased safety, and more attractive career opportunities. Some also offer programs for new farmer enlisting and provide ongoing support.

4. Farm & Ranch Land Preservation.

Agricultural land trusts and other initiatives that promote land preservation and protect fertile land from developers and large agribusiness use of environmentally degrading practices.

5. Policy Reform.

Practices that promote necessary changes to the Farm Bill, specifically for the reallocation and redistribution of approximately $300 billion of taxpayer dollars.

Our findings have lead us to consider only those investment opportunities that address one or more of the five (5) leverage points mentioned above. We have not identified income-generating investments in the areas of producer education & support, or policy reform, which have historically depended mainly on grant dollars.

We have organized investment opportunities that address one or more of the five leverage points into five main areas of impact: Air, Water, Land, Health, and Community Development. These impact areas reflect and address the five tragedies of the current food and agriculture system. Below we describe how these broad areas of impact connect to the financial system:

Air. This section highlights investments in practices that reduce air pollution. According to a recent McKinsey & Co study, nearly half of the most economically attractive carbon abatement opportunities involve forestry, agriculture and waste disposal in developing countries

Water. This section highlights investments that address water quality, distribution and accessibility; i.e. investments in groundwater management, irrigation, precision agriculture, etc. Agriculture is a major consumer of ground and surface water in the United States, accounting for 80 percent of the Nation's consumptive water use; in many Western States it accounts for over 90 percent.[30]

Land. This section highlights investments that contribute to healthy soil and farmland. Some examples are investments in organic and sustainable farm and ranch land management, agricultural land trusts, etc. As Woody Tasch writes in his book Inquiries into the Nature of Slow Money: "We need to bring money back down to earth".

Health. This section highlights investments that have the potential to improve the health of community members. The current food system contributes significantly to the degradation of public health. The severity of chronic food-related diseases threatens to make today's children the first generation of Americans whose life expectancy will actually be shorter than that of their parents.[31]

Community Development. This section highlights investments that catalyze regional food systems, and give communities more power or sovereignty over their own food supply. These are investments in small to medium-size businesses (including small farms), building of community facilities and infrastructure, rural development, poverty and hunger alleviation, as well as microfinance and other financial services.

Lastly, deals are arranged in four (4) main asset classes: cash, debt, equity, real assets; these are representative of the classes commonly used by the investment vehicles surveyed (certain investment funds combine more than one asset class in their investments). In terms of geographic concentration, our research revealed that the majority of investment opportunities are clustered in two (2) main geographic areas: New England and the West Coast; therefore most of the investments profiled represent these areas.

The social and environmental impact of each investment opportunity is described thoroughly in each case study. As our intention is to be supportive of industry providers we have applied the IRIS[32] taxonomy where available. Additional social and environmental indicators have been created by the TSF team where applicable.

Case Studies by Geography

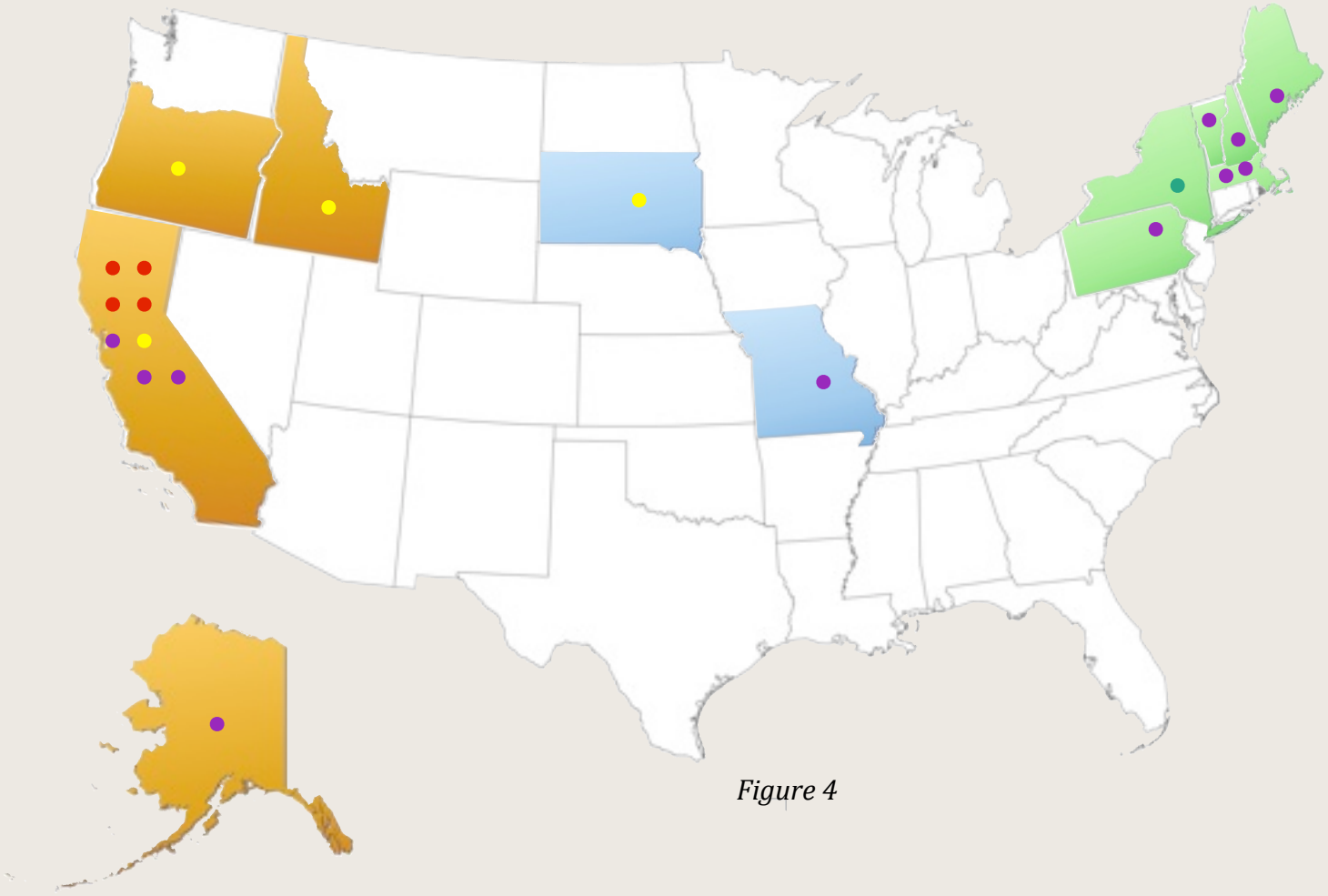


Figure 4

"Sustainable food systems are a powerful tool to stimulate local economy. Every dollar spent locally generates twice as much for the local economy."

New Economics Foundation, London

Map Key:

- Real Assets
- Debt
- Cash
- Equity

CA Farmlink (Columbia Foundation)

Columbia Foundation awards grants for the arts, human rights, and sustainable food and farming and has made one PRI to date, to California Farmlink for the loan fund for farmers. Other co-investors are Calvert Foundation, Wells Fargo, Rabobank, Comerica Bank, and one private investor.

Investor Profile:

- ✓ Deal size: $1,000,000

Private Investor, high net worth individual

Example Investment Description:

CA Farmlink is a statewide organization that provides technical assistance and business education to existing and aspiring farmers. The loan from investors was used as funding capital for the "microloan fund". The technical assistance and business education activities are supported by grants.

CA FarmLink's loan fund attempts to meet capital needs of small, organic low-income, minority and new farmers. CA Farmlink has currently 3,000 clients, most of whom are organic growers. In addition to that CA Farmlink manages a loan fund of $1.5 mil, from which loans of $25K - $100K are made to new and existing farmers for land purchase or expansion of a farming operation.

- ✓ Farmlink loans to farmers are 90% guaranteed by the USDA
- ✓ 5-year average term (operating loans for 1 to 2 years, and infrastructure and development loans, for 3 to 7 years

Social Impact

- ➡ Enterprise/Business development training*
- ➡ Access to healthy Food
- ➡ It promotes economic viability and fairness for producers and rural communities
- ➡ Food security
- ➡ Increased consumer awareness about healthy food
- ➡ Jobs maintained/created*
- ➡ Increased access to financial tools for small farmers (clients: small farmers*)
- ➡ Worker safety*

Environmental Impact

- ➡ Energy savings*
- ➡ Greenhouse gas offset/ mitigated*
- ➡ Land preserved*
- ➡ Biodiversity assessment*
- ➡ Sustainably cultivated land area*
- ➡ Decreased in use of agrochemicals*

Financial Return:

2% annually

*IRIS Indicators

Farmland LP

Farmland LP, a private equity fund, acquires conventional farmland and converts the land to high-value organic farmland using sustainable agriculture best-practices. .

Farmland LP uses sustainable agriculture best practices to maximize soil fertility and investment returns, including crop and multi-species animal rotations. These methods improve profitability by both reducing input costs and by increasing the amount and value of food produced per acre, thus generating greater returns to both the farmers and Farmland LP.

Investor Profile:

The newly formed fund with currently 12 individual accredited investors (including members of the Slow Money Alliance). In addition to that, it expects to attract institutional investors and foundations.

- ✓ Minimum investment is $50,000 for individuals or $1 million for institutional investors.
- ✓ Fund has a three year lockup.
- ✓ The fund is a perpetual fund; therefore there is no time horizon.

Example Investment Description:

Farmland LP acquired 154 acres in February of 2010. Included with the purchase were water rights sufficient to irrigate the entire property. Farmland LP developed our organic conversion plan for the land, planted a custom high-quality forage mix (pasture), and leased it to a sheep rancher who agreed to use organic practices and regenerative grazing methods on the land. Leases for poultry and hogs were also implemented. Investors have profit sharing agreements with the farmers. Farmland LP is planning on rotating 20% of the land into high quality organic vegetable production next year, when the land is certified.

Social Impact

- ➡ Increased access to healthy food
- ➡ Worker safety*
- ➡ Fair working conditions*
- ➡ Fair compensation*
- ➡ Jobs created in low-income areas*

Environmental Impact

- ➡ Farmland preservation*
- ➡ Decreased usage of agrochemicals*
- ➡ Sustainably cultivated area*
- ➡ Greenhouse gas offset/ mitigation*
- ➡ Promotion of biodiversity (biodiversity assessment*)
- ➡ Trees planted*

Financial Return:

Farmland LP targets an annual return of 8% net cash flow to investors, with additional long-term returns from the appreciation of the farmland.

*IRIS Indicators

Beartooth Capital

Beartooth Capital Fund I and Fund II acquire and enhance the value of rural land in the western U.S. through a variety of means including habitat restoration, fixing property flaws and entitlement, while returning capital and mitigating investment risk via conservation and ecosystem services transactions.

Fund I is fully allocated, with approximately $40 million under management. Fund II has more than $25M in commitments to date and is currently raising additional capital.

Investor Profile:

Mostly high net worth individuals, family offices plus some foundations and institutions

- ✓ Fund I launched in 2006 and Big Springs Creek Ranch was purchased in early 2008
- ✓ Fund II has a ten-year term and minimum investment size of $1M

Example Investment Description:

Big Springs Creek Ranch, a 1,234-acre ranch located in the heart of the Pahsimeroi Valley. The ranch and its spring creeks provide habitat for big game, waterfowl, upland birds and an amazing array of fish. The ranch has long been a top conservation priority in the region thanks to critical spawning, brooding and rearing habitat for endangered wild Chinook salmon and steelhead.

- ✓ A conservation easement sale returned more than 55% of purchase price to investors within the first year

Social Impact

- ➡ Increased food security
- ➡ Thriving rural based land economy
- ➡ Substantial economic benefits of recreational tourism associated with salmon and steelhead are more secure and should grow with the recovery of wild salmon and steelhead

Environmental Impact

- ➡ Land preservation*
- ➡ Water bodies preservation* (creeks/rivers)
- ➡ Restoration and preservation of wildlife habitat
- ➡ Restoration and protection of migratory corridors
- ➡ Restoration of flow of ecosystem services (flood control, water quality, water provisioning, pollination, etc)
- ➡ Promotion of biodiversity (biodiversity assessment*)

Financial Return:

Beartooth Capital II, LP (Fund II) targets a 15% return net to investors and has a preferred return of 8%.

*IRIS Indicators

Grasslands, LLC

Level 3 Capital Advisors, LLC, is a holding company for impact investment activities. Their portfolio consists of specialized private fund investments, as well as direct investments in private companies involved in sustainable land management, food, and water.

Investor Profile:

Armonia, LLC, is a private equity firm focusing heavily on business that serves environment and society. They employ a patient capital approach to investments

- ✓ Deal size: Varies

Example Investment Description:

Grasslands LLC owns and manages over 50,000 acres across Montana and South Dakota.

Following the Savory institute business model, by getting grazing cattle to stay in larger, tight herds, it is possible to restore grassland vitality and increase grass biodiversity. By actively planning and managing the grazing and recovery of the plants as opposed to allowing continuous grazing, ruminants become part of the solution rather than a burden to the land. Appropriate amounts of grazing, paired with the repeated soil chipping of hooves, caused dormant seeds to germinate and water to penetrate below the surface. Some benefits are: Regenerating soil, water, biodiversity and carbon sequestration as well as reduction in feed costs, fuel and labor costs reduced by 50%.

- ✓ Year investment was made: 2010
- ✓ Deal size: $20,000,000 committed

Social Impact

- ➡ Increased food security (including reduced disease incidence)
- ➡ Thriving rural based land economy
- ➡ Increased water security

Environmental Impact

- ➡ Land preservation*
- ➡ Greenhouse gas offset/ mitigated*
- ➡ Increased carbon sequestration
- ➡ Water cycle restoration
- ➡ Promotion of biodiversity (biodiversity assessment*)

Financial Return:

Targeted 5-10% operating income excluding land appreciation

*IRIS Indicators

HK 40 Lindsay (Holon)

Focused on permanent crop land and citrus farms in the southern San Joaquin Valley; Holon manages individual accounts. It buys and holds land on behalf of the investor.

Investor Profile:

Accredited Investors with green ethos, with the intention to hold the property for a long term

- ✓ Deal size: $750,000-$1,500,000
- ✓ Minimum investment: $750,000

Example Investment Description:

HK 40, Lindsay is a 40-acre permanent citrus orchard (Washington navel, late navel oranges and golden nugget mandarins) located in Lindsay, CA; currently in the process of partial redevelopment and transitioning to organic farming.

During the first 3 years, the investor took a financial hit, as farming costs increased by 10-20% in order to build soil health. After the 3rd year, orchards are certified organic and higher returns are realized.

- ✓ Owner and Holon are planning to install solar panels to convert asset into a net zero property.

Social Impact

- ➡ Increased access to healthy food
- ➡ Employment benefits*
- ➡ Worker safety*
- ➡ Fair working conditions*
- ➡ Fair compensation*
- ➡ Jobs created in low-income areas*

Environmental Impact

- ➡ Farmland preservation*
- ➡ Decreased usage of agrochemicals*
- ➡ Sustainably cultivated area*
- ➡ Greenhouse gas offset/ mitigation*
- ➡ Promotion of biodiversity (biodiversity assessment*)
- ➡ Trees planted*

Financial Return:

12-13% on crop appreciation + 2-3% annual land appreciation

*IRIS Indicators

AgWaste Solutions

Ag Waste Solution's (AWS) goal is to abate 90% or more of manure related air and water pollution while creating renewable energy and valuable by-products that produce excellent economic results.

AWS has received two patents for its proven proprietary waste-to-energy system that significantly reduces total air and water pollution created by the animal producing industry. This enormous benefit literally occurs as a by-product of converting the manure into high BTU, high value energy. Patented system configurations consist of up to four modules that are already in commercial use in other industries - the core two of which are patented and exclusively licensed to AWS for the animal waste industry.

The core modules are a Solids Recovery Module, which removes 98% of solids from the waste slurry, and a Gas Production Module, which economically creates large quantities of high quality / high BTU biosyngas. This gas can be used to create electricity and heat/air conditioning, or be converted to liquid fuels such as biodiesel.

The AWS system is skid-mounted and readily integrates into the farm operations on a real time basis. AWS processes manure into a clean water for irrigation and/or re-flushing and a dry solids feedstock for its gasification module to produce clean, renewable energy.

Investor Profile:

24 angel investors

(incl. C.G. Andersen Partners, LLC)

- ✓ The company was founded in 1996 and is based in Westlake Village, California.
- ✓ Year Investment was made: 2006 - 2011
- ✓ Deal size: $4,000,000

Social Impact

- ➡ Worker safety* (no exposure to fumes and gases)
- ➡ Efficient waste management solutions for farmers

Environmental Impact

- ➡ Water bodies preserved*
- ➡ Land preserved*
- ➡ Hazardous waste avoided*
- ➡ Greenhouse gas offset/ mitigated*
- ➡ Renewable energy produced*
- ➡ Creation of fertilizer additives

Financial Return:

Expected 500% or greater ROI (depending on exit timing)

*IRIS Indicators

Marrone Bio Innovations, Inc.

One Earth Capital is a private equity fund that invests in early-stage companies with decentralized game-changing technologies in the agriculture, water and energy sectors.

Investor Profile:

Private Investor, high net worth individual. Other investors are: *Stuart Mill Ventures, Saffron Hill Ventures, CGI Opportunity Fund, Clean Pacific Ventures.*

- ✓ The fund has one LP, but they often look for co-investors.
- ✓ Average investment size: $1,000,000 - $3,000,000 per round

Example Investment Description:

Marrone Bio Innovations, Inc., a biopesticide company located in Davis, CA, engages in the discovery, development, and marketing of natural products for weed, pest, and plant disease management. They look for naturally occurring micro-organisms (bacteria, fungus and plant extracts) and they replace synthetic chemical pesticides in conventional farming, they protect crops in organic farming and control invasive species in water.

They manufacture products that improve yields and quality in conventional agriculture, compared to chemical-only systems, products that lower the cost and increase yields in organic farming, products for water treatment and water bodies. Products on the market: GreenMatch Bioherbicide and Regalia Biofungicide. 6 US and 9 international patents filed.

- ✓ Founded in 2006 by Pam Marrone, it currently has 54 employees
- ✓ In June 2011, Marrone Bio Innovations raised $25.4 Million Series C Financing
- ✓ Heavy R&D based company, it costs them $3-5 mil and 3 years of research per product

Social Impact

- ➡ Ensures worker safety*
- ➡ Promotes economic viability for sustainable farmers (incr. yields)
- ➡ Lowers production cost for organic farmers
- ➡ Decreased use of agrochemicals* (resulting in healthy food)

Environmental Impact

- ➡ Promotes biodiversity assessment*
- ➡ Greenhouse gas offset/ mitigated*
- ➡ Water bodies preserved*
- ➡ Land preserved*
- ➡ Energy savings* (reduction of fossil fuel consumption)

Financial Return:

One Earth Capital projects a return greater than 500% ROI

*IRIS Indicators

The Carrot Project

The Carrot Project fosters a sustainable, diverse food system by supporting small and midsized farms and farm-related businesses through expanding accessible financing and increasing farm operations' ability to use it to build successful, ecologically and financially sustainable, businesses. The Carrot Project partners with lenders, provides them with collateral (the funds sourced from investors) and enables loan programs for small farmers and farm-related businesses that could not otherwise access credit.

Investor Profile:

Accredited and non-accredited investors. Some of the initiative's investors are: *BSW Wealth Partners, clients of Clean Yield Asset Management, Fresh Pond Capital, Lydia B. Stokes Foundation, Talgra, LLC, clients of Trillium Asset Management, and members of the Slow Money Alliance*

- ✓ Deal size: $10,000 - $35,000
- ✓ Investor's capital is deposited in a CD account
- ✓ 5 year commitment
- ✓ Minimum investment: $25,000
- ✓ Total loans as of 2010: $185,000

Program Description:

The Carrot Project Agriculture Loan Fund is a partnership between the Carrot Project and the VCLF to increase loan disbursement to farmers.

- ✓ Maximum Loan Amount $35,000
- ✓ Loan term: 1-6 years
- ✓ Total Capital: up to $500,000

Social Impact

- ➡ Jobs maintained/created*
- ➡ Increased consumer awareness about healthy food
- ➡ Increased food security
- ➡ Increased economic viability for farmers
- ➡ Fair working conditions* (for small farmers and workers)
- ➡ Worker Safety*
- ➡ Number of small hold farmers financed

Environmental Impact

- ➡ Decreased use of agrochemicals* (resulting in healthy food)
- ➡ Energy Savings* (reduction in fossil-fuel consumption)
- ➡ Greenhouse gas offset/ mitigated*
- ➡ Land preserved*
- ➡ Increased sustainably cultivated land area*
- ➡ Biodiversity assessment* (promotion of biodiversity)

Financial Return:

Between 1% - 3% annually

*IRIS Indicators

Cityscape Farms

Cityscape Farms is a greenhouse based urban farming initiative in San Francisco.

They lease commercial rooftops and install hydroponic greenhouses. Their fertilizer and pesticide-free produce is sold to local markets and restaurants.

Investor Profile:

Angel investor

- ✓ Year Investment was made: 2010
- ✓ 3 year term
- ✓ Deal size: $150,000

Social Impact

- ➡ Promotes local food systems (food is produced and consumed locally)
- ➡ Promotes urban agriculture
- ➡ Healthy Food
- ➡ It promotes economic viability and fairness for producers
- ➡ It uses rooftops, that otherwise would be left unused
- ➡ Worker safety*

Environmental Impact

- ➡ Energy savings*
- ➡ Greenhouse gas offset/ mitigated*
- ➡ Land preserved* (no soil is used)
- ➡ Water savings* (hydroponic system)
- ➡ Promotion of biodiversity (biodiversity assessment*)
- ➡ Decreased agrochemicals use*

Financial Return:

Convertible Note at 8% for 3 years

*IRIS Indicators

Equity Trust

Equity Trust (through the Equity Trust Fund) makes low-interest loans for community development, education and agricultural projects. The fund focuses on grassroots groups that pioneer creative models relating to control, use and stewardship of property.

Investor Profile:

Equity Trust's investors are primarily socially motivated individuals of diverse net worth, as well as a number of religious orders.

- ✓ Minimum investment from investors is $1,000 for a minimum of 1 year
- ✓ Maximum deal size: $200,000

Example Investment Description:

Cold Pond Community Land Trust a horse-powered, biodynamic, community supported agriculture farm used the loan to purchase additional land. Cold Pond CLT hopes to create a farming community that will provide access to agricultural land for six families..

- ✓ Deal Size: $52,000

Social Impact

- ➡ Increased access to local healthy food
- ➡ Increased awareness local/ sustainably harvested food
- ➡ Increased Food security
- ➡ Promotion of economic viability for farmers, workers and rural communities.
- ➡ Fair working conditions*
- ➡ Promotion of regional food systems
- ➡ Jobs maintained/created*
- ➡ Rural and agrarian community development (infrastructure)
- ➡ Promotion of producer education
- ➡ Worker safety

Environmental Impact

- ➡ Energy savings*
- ➡ Greenhouse gas offset/ mitigated*
- ➡ Farmland preservation*
- ➡ Water bodies preservation*
- ➡ Promotion of biodiversity (biodiversity assessment*)
- ➡ Sustainably cultivated land area*
- ➡ Reductions in usage of agrochemicals

Financial Return:

0% - 2% annually

*IRIS Indicators

People's Community Market

People's Community Market (PCM) is a startup social venture and for-profit spin-off from People's Grocery, a nonprofit organization nationally recognized for its efforts and innovations in improving inner city food environments and nutrition among lower-income residents of Oakland. The company intends to operate a medium scale store footprint with products focused to specific cultural demands, and twin offers in organic foods and non-organic foods across all product categories.

PCM will be a fresh food retail store with the goal of improving nutrition and providing positive social space in the low-income inner city community of West Oakland, CA, a community considered a food desert because of its food conditions.

PCM products will emphasize local and ethnic foods targeted at its diverse consumer base. Signature offerings will be in produce, perishable products and prepared foods.

The store will include a 3,500 sq ft outdoor venue called the "Front Porch", which will feature a patio with family-style seating, a stage, a children's play area and BBQ.

Investor Profile:

Patient capital, accredited investors (incl. members of the Slow Money Alliance), social impact investment firms, foundations, CDFIs.

- ✓ Investment Secured to Date: $200,000
- ✓ Year five revenues are expected to be $9.7 million
- ✓ Current firm valuation: $2,260,000 pre-money valuation

Social Impact

- ➡ Promotion of regional food systems
- ➡ Increased consumer awareness
- ➡ Promotion of community health
- ➡ Increased local economic activity
- ➡ Increased food security
- ➡ Increased access to healthy food
- ➡ Mitigate food deserts
- ➡ Jobs maintained/created in low-income area*
- ➡ Employment benefits*

Environmental Impact

- ➡ Greenhouse gas offset/ mitigation*
- ➡ Energy savings*
- ➡ Water savings
- ➡ Green construction
- ➡ Waste reduction

Financial Return:

150-175% ROI expected

*IRIS Indicators

RSF: Social Investment Fund

RSF Social Finance (RSF) is a non-profit financial services organization dedicated to transforming the way the world works with money. In partnership with a community of investors and donors, RSF provides capital to non-profit and for-profit social enterprises addressing key issues in the areas of Food & Agriculture, Education & the Arts, and Ecological Stewardship.

The RSF Social Investment Fund provides the opportunity to invest in a diversified, direct loan fund comprised of over 75 non-profit and for-profit social enterprises. It offers the everyday investor a secure vehicle for financing social enterprises.

Investments in this fund support RSF's Core Lending Program, which provides mortgage loans, working capital lines of credit, and inventory financing exclusively to non-profit and for-profit organizations in the areas of food & agriculture, education and the arts and ecological stewardship.

Investor Profile:

Accredited and non-accredited investors

- ✓ Minimum investment: $1,000
- ✓ Minimum term: 90 days
- ✓ Average Deal size: $1,000,000

Example Investment Description:

Kuskokwim Seafoods, LLC is a small salmon processing company located in Bethel, Alaska, and is certified by the Marine Stewardship Council. They provide an important revenue source to a community of native, subsistence fishermen, and other local residents. Fishermen are paid fair market prices for their salmon catch and have the convenience of being able to sell their catch closer to home. The company also provides community employment opportunities and fair wages to workers on their processing barge during the fishing season.

Social Impact

- ➡ Promotion of regional food systems
- ➡ Increased consumer awareness (change in consumer behavior)
- ➡ Access to healthy food
- ➡ Economic viability for small-hold fisherman (suppliers) and the community
- ➡ Supplier: small fisherman
- ➡ Jobs maintained/created*

Environmental Impact

- ➡ Healthier oceanic systems

Financial Return:

The interest rate on the investment note varies quarterly, averaging 2.87% over the last five years. The current interest rate for investment notes is 1.00% annually.

*IRIS Indicators

Cape Cod Fisheries Trust

The Cape Cod Fisheries Trust is a program of the nonprofit Cape Cod Commercial Hook Fishermen's Association.

The Trust works to protect the future of Cape Cod's historic fishing industry by purchasing commercial permits in order to secure additional fishing opportunities for the struggling local fleet.

Cape Cod Fisheries buys scallop and ground fish "catch shares" and leases them to qualifying fishermen at a subsidized rate. Qualifying criteria include owner-operator, sustainable fishing practices, tax compliant, insured, share to crew, and domiciled on Cape Cod.

Investor Profile:

Accredited Investors

- ✓ Minimum investment: $250,000
- ✓ Established in 2008

Example Investment Description:

About Catch Shares:

To end overfishing and restore depleted fish populations, fisheries regulators across the country are turning to catch shares programs. Essentially a 'cap and trade' model, catch share programs are designed to annually allocate portions of the fishery's overall harvest to various participants, while allowing some degree of trading and transfer of the resulting shares. These programs represent a valuable tool in addressing the persistent problems in fisheries. However, the market forces they create may cause consolidation at the expense of fishing communities and the least destructive fishing gears.

Social Impact

- ➡ Healthier fish populations
- ➡ More sustainable fisheries
- ➡ More profitable fishing businesses
- ➡ Economic viability for the fishermen and the community
- ➡ Fair working conditions*
- ➡ Fair compensation for fishermen*
- ➡ Job retention and creation*

Environmental Impact

- ➡ Energy Savings*
- ➡ Greenhouse gas offset/ mitigated*
- ➡ Preservation of coastline*
- ➡ reduction in by-catch
- ➡ reduction in habitat impact

Financial Return:

3% annually

*IRIS Indicators

Impact Fund, LLC (Cornerstone Ventures)

Impact Fund LLC is managed by Cornerstone Ventures. It invests in innovative solutions for sustainable, local economies: urban agriculture, wellness, rural business development alternative energy, health care.

Investor Profile:

Accredited investors

- ✓ Investors can purchase senior promissory notes at a minimum of $100,000
- ✓ Average deal size: $700,000

Example Investment Description:

Farm To Family Naturally LLC aggregates and distributes locally produced food products through "buy fresh/buy local" focused grocery stores, mobile markets and delivery services. They offer customers affordable locally grown and/or raised foods and feature all natural, hormone and antibiotic free beef, pork, cheeses, milk and dairy, and, in season, bulk priced selections of fresh fruit, vegetables and nursery items.

The loan was used to refinance existing debt, to provide working capital to support expansion and for the purchase of equipment. Loan is collateralized with equipment.

- ✓ Year Investment was made: 2010

Social Impact

- ➡ Access to local food
- ➡ Producer price premium*
- ➡ Jobs maintained/created*
- ➡ Supplier: Small hold farmer*
- ➡ Increased awareness local food
- ➡ Economic viability for the small farmers
- ➡ Promotion of regional food systems
- ➡ Food security

Environmental Impact

- ➡ Energy Savings*
- ➡ Greenhouse gas offset/ mitigated*

Financial Return:

Investors receive 8% annual interest rate on senior notes

*IRIS Indicators

RSF PRI Fund

RSF's PRI Fund is mainly focused on supporting organizations that are addressing two hurdles preventing the proliferation of local food systems: processing and distribution. The PRI Fund allows foundations to make PRI loans to charitable projects without the expense and learning curve of setting up an in-house lending program.

RSF Social Finance (RSF) is a pioneering non-profit financial services organization dedicated to transforming the way the world works with money. In partnership with a community of investors and donors, RSF provides capital to non-profit and for-profit social enterprises addressing key issues in the areas of Food & Agriculture, Education & the Arts, and Ecological Stewardship.

Investor Profile:

Foundations PRI Funds

- ✓ 5 year term
- ✓ Minimum Investment: $100,000
- ✓ Average Deal size: $100,000

Example Investment Description:

Common Market Philadelphia is a wholesale consolidator and distributor of local food, creating a link between local farmers and the urban marketplace. Common Market was developed to empower, strengthen, and connect two vulnerable communities: Philadelphia area farmers and urban consumers who lack access to healthy, local food. Common Market currently works to distribute food from approximately 20 small farms, all within 100 miles of Philadelphia.

Social Impact

- ➡ Access to local food
- ➡ Producer price premium*
- ➡ Jobs maintained/created*
- ➡ Supplier: Small hold farmer*
- ➡ Increased awareness local food
- ➡ Economic viability for the small farmers
- ➡ Promotion of regional food systems
- ➡ Food security

Environmental Impact

- ➡ Energy savings*
- ➡ Greenhouse gas offset/ mitigated*

Financial Return:

RSF PRI Fund is projected to return 1% annually

*IRIS Indicators

PV Grows

The PV Grows Loan Fund finances of post-harvest agricultural infrastructure such as packing, processing, storage, and distribution.

Layered structure: PRI Makers are committing $400,000 in the fund; and Institutional Investors are committing $600,000.

Investor Profile:

The PVGrows Loan Fund is a collaborative effort between four lenders *(Western Massachusetts Enterprise Fund, Franklin County Community Development Corporation, Equity Trust and Cooperative Fund of New England*); and three foundations *(Solidago Foundation, Frances Fund Foundation, and Lydia B. Stokes Foundation)*

- ✓ 5 year term
- ✓ Deal size: $200,000
- ✓ Total target fund size is $1,000,000

Example Investment Description:

Organic Renaissance operates a web-based portal called the Northeast Food Exchange which allows local food producers to list products, availability, and pricing for direct sale to restaurants, retailers, schools, or other buying groups in Athol, MA.

- ✓ Loan is 70% USDA insured and 30% with equipment collateral.

Social Impact

- ➡ Access to local food
- ➡ Producer price premium*
- ➡ Jobs maintained/created*
- ➡ Supplier: Small hold farmer*
- ➡ Increased awareness local food
- ➡ Economic viability for the small farmers
- ➡ Promotion of regional food systems
- ➡ Food security

Environmental Impact

- ➡ Energy savings*
- ➡ Greenhouse gas offset/ mitigated*

Financial Return:

PRI Makers earn 2% annually

*IRIS Indicators

Cooperative Fund of New England

Cooperative Loan Fund of New England is a CDFI investing in New England's food systems, supporting cooperatives, worker ownership, and community non-profits. The fund has been in operation for 35 years with currently $10,000,000 asset under management and is capitalized by accredited and non-accredited investors.

Investor Profile:

Accredited and non-accredited investors. Investor mix includes individuals, foundations and a number of faith based organizations, as well as some of the cooperatives who may have been borrowers and are now investors

- ✓ Minimum investment is $1,000
- ✓ Maximum Deal size: $750,000

Example Deal Description:

MidCoast Fishermen's Cooperative is a cooperative whose fishermen harvest their catch using environmentally sustainable fishing methods that reduce by-catch, habitat impact and fossil-fuel consumption.

The loan to MidCoast Fishermen's Cooperative is a line of credit for working capital. They are amortizing it over 3 years, after a 6-month interest only period. They can re-borrow as needed.

- ✓ Year Investment was made: 2011

Social Impact

- ➡ Fair working conditions*
- ➡ Worker Safety*
- ➡ Fair compensation practices*

Environmental Impact

- ➡ Reduction in by-catch
- ➡ Reduction in habitat impact
- ➡ Energy Savings* (reduction in fossil-fuel consumption)
- ➡ Greenhouse gas offset/ mitigated*
- ➡ Preservation of coastline*

Financial Return:

Fund pays 0% - 3% interest

*IRIS Indicators

Green Mountain Organic Creamery

Green Mountain Organic Creamery is a dairy plant for the production and distribution of organic milk and milk products throughout Vermont, New England, and New York.

They plan on bottling milk from their 200-cow organic dairy and will add other Vermont Farms as they grow. Their goal is to provide a sustainable milk price for farmers and a great local and regional dairy product for Vermont and the greater northeast region. Milk will be distributed mostly in stores, colleges and hospitals in the area. Milk bottling is scheduled to start in June 2011, and should reach store shelves in early October 2011.

Investor Profile:

Accredited and non-accredited individual investors (incl. members of the Slow Money Alliance) "who are concerned about the environment, where their food comes from and how it is produced"

- ✓ Year Investment was made: 2011
- ✓ Deal size: $500,000

Social Impact

- ➡ Promotion of regional food systems
- ➡ Increased consumer awareness (change in consumer behavior)
- ➡ Access to healthy food
- ➡ Economic viability for small-hold farmers (suppliers) and the community
- ➡ Supplier: small farmers*
- ➡ Producer price premium*
- ➡ Jobs maintained/created
- ➡ Promotion of community health

Environmental Impact

- ➡ Energy savings*
- ➡ Greenhouse gas offset/ mitigated*

Financial Return:

6% annually

*IRIS Indicators

Gather Restaurant

Gather is an organic, sustainable, locally focused restaurant in Berkeley, California.

Since opening, Gather was described as a *"Michael Pollan book come to life"* by the New York Times, and Esquire picked it as one of the best new restaurants in the country, and named Gather's chef, Sean Baker, Chef of the Year.

Investor Profile:

65 investors with investments ranging from $5,000 to $400,000, (including members of the Slow Money Alliance a community bank and a local CDFI)

- ✓ Year Investment was made: 2008-2010
- ✓ Deal size: $2,100,000 in equity and $350,000 in debt

Social Impact

- ➡ Promotion of regional food systems
- ➡ Increased consumer awareness
- ➡ Promotion of community health
- ➡ Increased local economic activity
- ➡ Jobs maintained/created in low-income area*

Environmental Impact

- ➡ Greenhouse gas offset/ mitigation*
- ➡ Energy savings*

Financial Return:

Restaurant plans to return principal to investors within 5-7 years, and after that 10% annually in perpetuity.

*IRIS Indicators

Revolution Foods

DBL Investors is a venture capital firm created from the spin-out of the Bay Area Equity Fund I from JPMorgan in January of 2008. Their "Double Bottom Line" investment strategy is to invest in companies that can deliver top-tier venture capital returns while working with companies to enable social, environmental and economic improvement in the regions in which they operate.

Investor Profile:

foundations, banks, insurance companies, pension funds, corporations, family offices, and individual investors

- ✓ DBL Investors Bay Area Equity Fund I initial investment in July 2006 with follow-on investments in 2008 and 2010

Example Investment Description:

Revolution Foods (RF) transforms school food service by providing healthy food, nutrition education, and operational support for schools in California. RF is the first company to provide the combination of quality food, nutrition education, and operational support to schools at a price that fits the requirements of the National School Lunch.

They partnered with Whole Foods, who has since shared their network of vendor partnerships.

- ✓ Distributes 70,000 healthy meals daily and has served 25 million healthy meals to kids since inception
- ✓ at least 80% of the students served by RF are participants in the Free and Reduced-Price Lunch program
- ✓ Areas of operation: California, Colorado, and the Washington DC Metropolitan area

Social Impact

- ➡ Healthy food
- ➡ Healthy kids
- ➡ Increased awareness about nutrition
- ➡ Increased access to local food
- ➡ Jobs created: over 400*
- ➡ Increased economic viability for local food suppliers

Environmental Impact

- ➡ Energy savings*
- ➡ Greenhouse gas offset/ mitigation*

Financial Return:

Manager projects venture capital rate of returns on equity, and 3-7% annually on debt.

*IRIS Indicators

Appendix A

[1] Agribusiness or Industrial Agriculture is a form of modern farming that refers to the industrialized production of livestock, poultry, fish, and crops. It achieves economies of scale by means of heavy use of chemicals, fossil fuels, genetic technology and subsidies (in the US). Most of the meat, dairy, eggs, fruits, and vegetables available in supermarkets are produced using these methods.

[2] Food system reform refers to the full transition to regional sustainable food systems.

[3] http://rootsofchange.org/

[4] Source: Alphamundi, October 2010.

[5] Jessica Freireich & Katherine Fulton, Investing for Social and Environmental Impact, Monitor Institute, Jan. 2009, page 31

[6] Jessica Freireich & Katherine Fulton, Investing for Social and Environmental Impact, Monitor Institute, Jan. 2009, page 32

[7] http://www.scientificamerican.com/article.cfm?id=growing-population-poses-malthusian-dilemma

[8] Census tracks a high poverty rate in those who are more than one mile away from a supermarket or large grocery store. Source: http://www.ers.usda.gov/data/fooddesert/fooddesert.html

[9] http://www.ers.usda.gov/data/fooddesert/fooddesert.html

[10] Source: FAO

[11] Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. Source: FAO

[12] Source: California Hunger Action Coalition

[13] FAO, 2003

[14] http://www.internationalmedicalcorps.org/gifts/food

[15] Source: Interview with Organic Guide, January 2011

[16] Source: United Nations

[17] Planting trees and crops on the same parcel

[18] Source: Tom Philpott blog

[19] Source: The New York Times

[20] Food that is generally free of synthetic substances; contains no antibiotics and hormones; has not been irradiated or fertilized with sewage sludge; was raised without the use of most conventional pesticides; and contains no genetically modified ingredients. Source: USDA.

[21] According to USDA records, in 1994 there were 1,755 operating farmers' markets in the US. By 2010 there were 6,132.

[22] http://cornandsoybeandigest.com/issues/farm-banks-increased-ag-loans-2010

Appendix A (cont.)

[23] The New Markets Tax Credit (NMTC) Program was established in 2000 as part of the Community Renewal Tax Relief Act of 2000. The goal of the program is to spur revitalization efforts of low-income and impoverished communities across the United States and Territories. The NMTC Program provides tax credit incentives to investors for equity investments in certified Community Development Entities, which invest in low-income communities.

[24] A Smallholding is a farm of small size.

[25] Inspired by the vision of "nurture capital" presented in Inquiries into the Nature of Slow Money: Investing As If Food, Farms, and Fertility Mattered, written by Slow Money USA founder Woody Tasch

[26] Source: Farmland Information Center http://www.farmlandinfo.org/documents/38426/Final_2007_NRI_Agricultural_Land.pdf

[27] In agriculture, post-farm gate activities refer to any activity after production: processing, distribution, marketing, retail, waste management.

[28] Tranche (French for "slice"): a piece, portion or slice of a deal or structured financing. This portion is one of several related securities that are offered at the same time but have different risks, rewards and/or maturities. Source: Investopedia

[29] ROC's main mission is to create a sustainable food system in California by 2030.

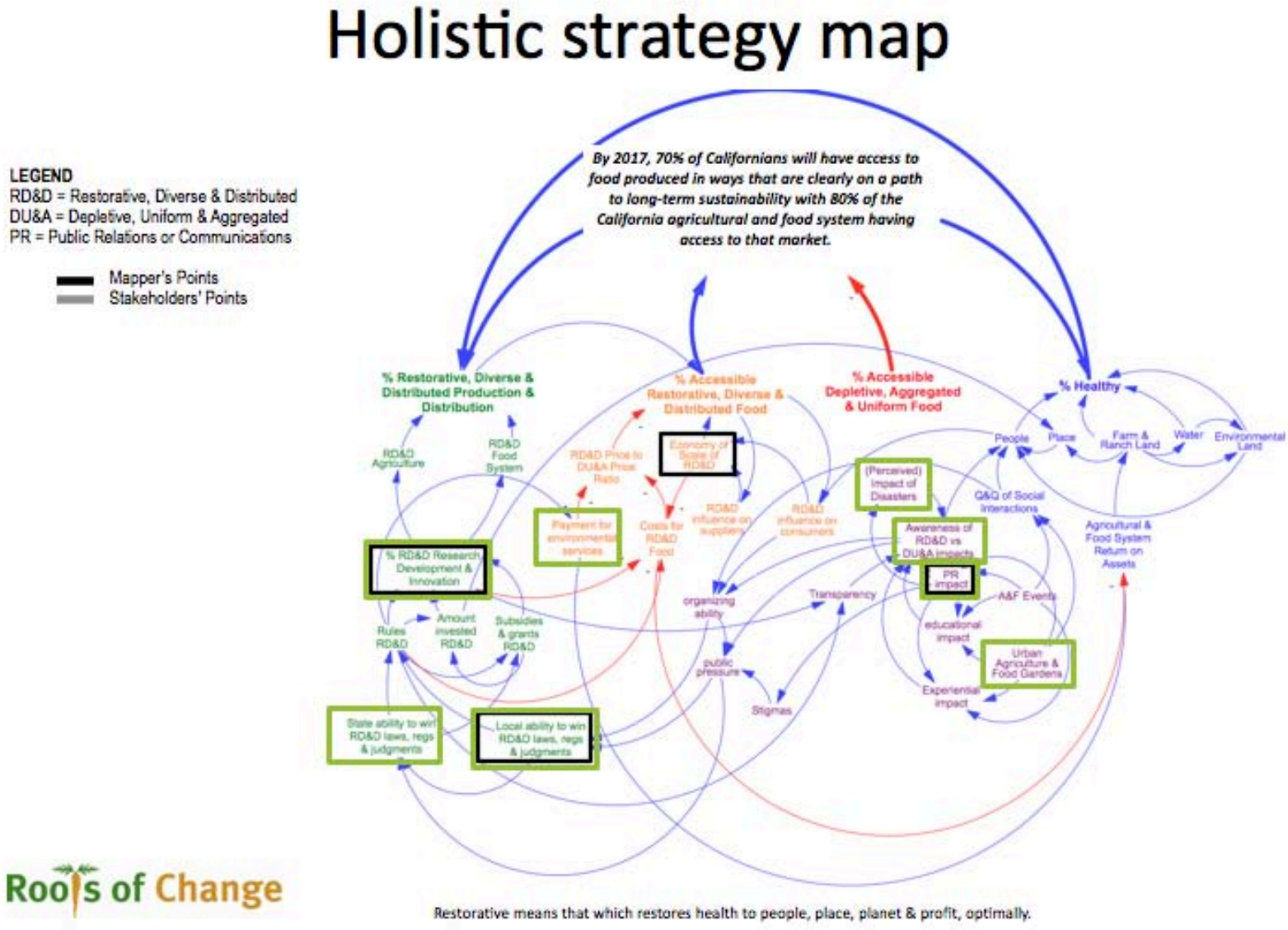
[30] Source: USDA. Economic Research Service

[31] Michael Pollan, *The Omnivore's Dilemma: A Natural History of Four Meals*

[32] Impact Reporting & Investment Standards (IRIS) is a common language for describing the social and environmental performance of an organization. This initiative is developed by the *Global Impact Investing Network*.

[33] Note: Placement of deal points are geographically relevant to the State in which the Example Deal is located, not the actual geographic location.

Appendix B


Holistic strategy map
LEGEND
RD&D = Restorative, Diverse & Distributed
DU&A = Depletive, Uniform & Aggregated
PR = Public Relations or Communications
Mapper's Points
Stakeholders' Points
By 2017, 70% of Californians will have access to food produced in ways that are clearly on a path to long-term sustainability with 80% of the California agricultural and food system having access to that market.
% Restorative, Diverse & Distributed Production & Distribution
% Accessible Restorative, Diverse & Distributed Food
% Accessible Depletive, Aggregated & Uniform Food
% Healthy
People
Place
Farm & Ranch Land
Water
Environmental Land
RD&D Agriculture
RD&D Food System
RD&D Price to DU&A Price Ratio
Economy of Scale of RD&D
(Perceived) Impact of Disasters
Q&Q of Social Interactions
Payment for environmental services
Costs for RD&D Food
RD&D influence on suppliers
RD&D influence on consumers
Awareness of RD&D vs DU&A impacts
PR impact
Agricultural & Food System Return on Assets
% RD&D Research Development & Innovation
organizing ability
Transparency
A&F Events
Rules RD&D
Amount invested RD&D
Subsidies & grants RD&D
educational impact
public pressure
Urban Agriculture & Food Gardens
Experiential impact
Stigmas
State ability to win RD&D laws, regs & judgments
Local ability to win RD&D laws, regs & judgments
Roots of Change
Restorative means that which restores health to people, place, planet & profit, optimally.

Appendix C

Recent Publications about Investing in Sustainable Food Systems:

Susan Cocciarelli, Dorothy Suput, Ray Boshara, *Financing farming in the US. Opportunities to improve the financial and business environment for small and midsized farms through strategic financing*, The W.K. Kellogg Foundation Food and Community Program, July 2010.
Amy Dickie, Local foods. *A guide for investors & philanthropists*, California Environmental Associates, January 2010.
Janice St. Onge, Scott Sawyer, Ellen Kahler, Kit Perkins, *Financing for Food System in Farm to Plate Strategic Plan*, Vermont Sustainable Jobs Fund.
Dorothy Suput, *Are northeast small farmers in a financing fix? Research results on financing gaps and program opportunities*, The Carrot Project, 2008.
Woody Tasch, *Inquiries into the Nature of Slow Money. Investing as if food, farms and fertility mattered*, Chelsea Green, 2008.

Impact Investing Books and Publications:

Marco Arosio, *Impact investing in emerging markets*, Responsible Research, May 2011.
Jessica Freireich & Katherine Fulton, *Investing for Social and Environmental Impact*, Monitor Institute, January 2009.
Mark Kramer, Adeeb Mahmud, Serah Makka, *Maximizing impact: an integrated strategy for grantmaking and mission investing in climate change*, FSG Social Impact Advisors, May 2010.
Nick O'Donohoe, Christina Leijonhufvud, Yasemin Saltuk, Antony Bugg-Levine, Margot Brandenburg, *Impact investments. An emerging asset class*, JP Morgan, The Rockefeller Foundation, Global Impact Investing Network, November 2010
Raul Pomares, Steven Godeke, *Solutions for impact investors: from strategy to implementation*, Rockefeller Philanthropy Advisors, November 2009.

Food and Agriculture Books and Publications:

Brian Halweil and Danielle Nierenberg, *Meat and seafood: The global diet's most costly ingredients*, The Worlwatch Institute, 2008.
Anna Lappe, Diet for a hot planet, Bloomsbury, 2010.
Michael Pollan, *The omnivore's dilema. A natural history of four meals*, The Penguin Press, 2006.
Michael Pollan, *In defense of food. An eater's manifesto*, The Penguin Press, 2008.
Corrina Steward, *Fueling disaster. A community food security perspective on agrofuels*, Community Food Security Coalition International Links Committee.
Agriculture and climate change: Impacts and opportunities at the farm level, National Sustainable Agriculture Coalition.
Agriculture and development. A summary of the international assessment on agricultural science and technology for development, International Assessment of Agricultural Science and Technology for Development, 2010.
Agriculture at a crossroads, International Assessment of Agricultural Science and Technology for Development
Realizing a new vision for agriculture: A roadmap for stakeholders, World Economic Forum, McKinsey & Company, 2010.
The food and farming transition. Toward a post carbon economy, Post Carbon Institute, Spring 2008.
The impact of animal agriculture on global warming and climate change, The Humane Society of the United States

Appendix C (cont.)

Other Online Resources:

Center for Integrated Agricultural Systems (University of Wisconsin) http://www.cias.wisc.edu/
Center for Sustaining Agriculture and Natural Resources (Washington State University) http://www.csanr.wsu.edu/
Food Desert Locator http://www.ers.usda.gov/data/fooddesert/fooddesert.html
The Land Institute http://www.landinstitute.org/
Leopold Center http://www.leopold.iastate.edu/
National Sustainable Agriculture Coalition http://sustainableagriculture.net/
National Sustainable Agriculture Information Service http://www.attra.ncat.org//
New Seed Advisors http://www.newseedadvisors.com/home.html
Oakland Institute http://www.oaklandinstitute.org/
Om Organics http://www.omorganics.org/
The Organic Center http://www.organic-center.org/
Rodale Institute http://www.rodaleinstitute.org/
Roots of Change http://rootsofchange.org/
Slow Money http://www.slowmoney.org/
Small Plate Institute: http://www.smallplanet.org/about/anna/bio
Sustainable Agriculture & Food Systems Funders http://www.safsf.org/
Sustainable Agriculture Research & Education (SARE) http://www.sare.org/
Sustainable Settings http://www.sustainablesettings.org/
USDA Sustainable Agriculture http://www.csrees.usda.gov/sustainableagriculture.cfm

Blogs:

http://blog.thegreenplate.org/
http://blogs.usda.gov/2011/06/08/a-new-roadmap-to-sustainable-agriculture/
http://www.eco-farm.org/blogs/farmer/
http://bittergreensgazette.blogspot.com/
http://www.slowfoodusa.org/index.php/slow_food/blog_post/