





## Abstract

In North American many people are unable to have their food needs met because of economic constraints. Current economic models in the U.S. support a bottom line approach that emphasizes the importance of getting the most goods and services to the highest number of people with the smallest amount of monetary resources possible. This approach does not take into account the relative value of natural systems and human interactions and therefore does not present an accurate representation of all possible costs. While repairing or recreating our economic system is a daunting task, analyzing what people find as having value in the United States will continue to build on the dialogue of how we will create such a shift.

The Urban Farm Collective in Portland, Oregon takes an interesting approach in its attempts to meet the food needs of its community. This paper will examine where the members of the Urban Farm Collective place value and explore how certain disciplines, movements and philosophies express their desire to create a new economic system.

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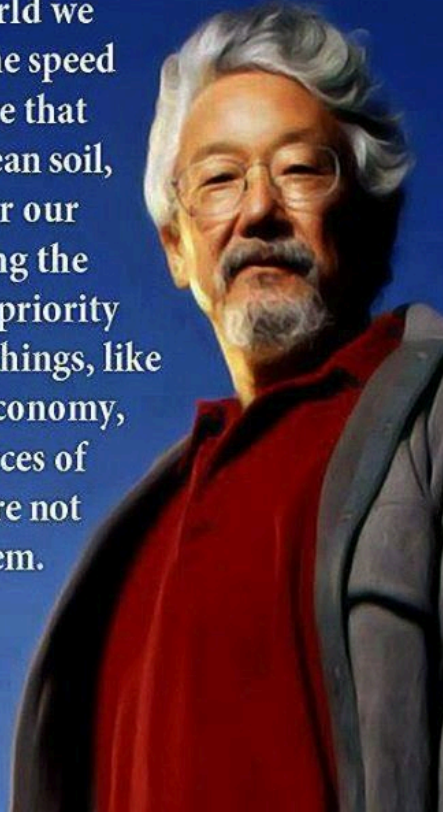
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# DAVID SUZUKI

There are some things in the world we can't change – gravity, entropy, the speed of light, and our biological nature that requires clean air, clean water, clean soil, clean energy and biodiversity for our health and well being. Protecting the biosphere should be our highest priority or else we sicken and die. Other things, like capitalism, free enterprise, the economy, currency, the market, are not forces of nature, we invented them. They are not immutable and we can change them. It makes no sense to elevate economics above the biosphere.



“Given the superior power and scope of the new idea, we might expect it to prevail rather quickly, but that almost never happens. The problem is that you can't embrace the new paradigm unless you let go of the old.”

Marilyn Ferguson - *The Aqwrian Conspiracy*

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## Acronyms

**AFI** - Alternative Food Initiative

**CSA** - Community Supported Agriculture

**IAASTD** - International Assessment of Agricultural Knowledge, Science and Technology for Development

**PSU** - Portland State University

**SNAP** - Supplemental Nutritional Assistance Program

**SSM** - Soft Systems Methodology

**SWOT** - Strengths, Weaknesses, Opportunities, Threats

**UFC** - Urban Farm Collective

**UNCTAD** - The United Nations Conference on Trade and Development

# Introduction

## Inequalities in Food Access

Sustainable agriculture and alternative food movements are on the rise in the United States. In 2011 the American Community Gardening Association documented over 16,000 community gardens and urban farms across the country (Fernandez et al., 2012). Community Supported Agriculture (CSA), community gardens and organic food in grocery stores is commonplace in many U.S. cities. By growing food where it will be eaten farmers can help lower the amount of negative externalities found in the industrial agriculture model (Altieri, 2005). Despite the growing availability of local and sustainably produced food, many communities are not having their food needs met. Critics point out that the slow food movement only makes local and sustainably grown food available to people of a certain income bracket, demographic or location (Levkoe, 2011).

In 2014, nearly 15 percent of Americans (46.5 million) were in poverty. 49 million Americans lived in food insecure households, 15.9 million of them being children. Feeding America claims that unemployment, not poverty is the greatest indicator of hunger (feedingamerica.org, 2014). A recent Gallup survey (McGeeney and Mendez, 2013) shows that

*The Percentage of Americans Who Are Obese in Food Deserts vs. Not in Food Deserts*

<b>Food Desert Groups</b>	<b>% Obese</b>
Low-income and low-access	30
Low-income only	28
Low-access only	25
Neither low-income nor low-access	26

Gallup-Healthways Well-Being Index

**GALLUP** Figure 1: Gallup, 2013

people being both low-income and having low-access to healthy foods (living in a food desert) have the greatest risk of obesity. The survey stresses that the real problem with poor diet in low-income areas has more to do with food affordability rather than availability.

While many alternative food initiatives (AFI) came about to address social and economic inequalities within our food systems, many enable the neoliberal policies they strive to overcome. Charles Zalmen Levkoe explains, “the existing critiques of AFIs aptly illustrate that unreflexive and uncritical actions can result in cooptation and reproduction of existing structures of economic exploitation and political oppression.” As AFI’s begin to address the food needs of their communities, governing bodies have relinquished the responsibility of providing basic needs to their citizens (Levkoe, 2011) and are able to continue making policy “that perpetuates the agro-industrial model, market concentration, and the orientation of research and extension toward these sectors (Fernandez et al., 2012).” These remain central barriers of the further implementation of strategies used by AFIs in addressing food justice into the mainstream and in policy making.

These critiques of alternative agri-food movements illustrate that much is yet to be explored in economic dimensions. Agroecologists express the need for an expansion of knowledge to fully understand the complexities of food systems. “Most research projects and university courses—even in agroecology—focus on the narrow components of agricultural production and their immediate environmental impacts. Such focus does not reflect our expanding vision of how ecology can inform the design and management of the total food system, nor does it build on the ecological foundation that has been used in several educational programs to support the development of sustainable agro-ecosystems (Francis et al. 2003).”

As agroecology continues to grow and expand its knowledge base it stresses the importance of addressing the economics of food systems. It is important that more research is conducted on successful AFIs abilities to provide quality food for all community members so that this responsibility does not remain solely on their shoulders and can be implemented on a larger scale. As policy makers in the United States claim to rely on the scientific method and our academic institutions for advice, agroecologists must examine how our economic systems impede our ability to create food sovereignty for all and provide research that calls for change.

*Food Sovereignty is “the right of peoples to healthy and culturally appropriate food produced through sustainable methods and their right to define their own food and agriculture systems. It develops a model of small-scale sustainable production benefiting communities and their environment. It puts the aspirations, needs and livelihoods of those who produce, distribute and consume food at the heart of food systems and policies rather than the demands of markets and corporations”*

*- La Via Campesina (viacampesina.org, 2014)*

## Discussion

### Evolution of Agroecology and Alternative Food Movements

A relatively new field in academia, Agroecology unites many disciplines to explore agroecological ecosystems in a holistic manner. A forerunner in the sustainable agriculture movement, agroecology is able to present research that shows the benefits of closed-looped systems in agricultural production. It also shows clearly how the practices of industrial agriculture of the 20<sup>th</sup> century cannot continue as they undermine themselves in their ability to produce larger and larger amounts of food (Gliessman, 2007). As a holistic field, agroecology has no boundaries in exploration and therefore has the advantage of working with many disciplines.

In the 1930s, agroecology emerged in scientific literature as a response to the negative environmental and social externalities that arose within the practices of industrial agriculture (Fernandez, 2012). On-farm analyses took place in order to better understand how to grow food with minimal or no negative impacts on the environment. Agroecology, initially rooted in ecology and agronomy, began to take a more holistic approach and explore the relationships between food systems and other human endeavors in the 1970s (Fernandez et al., 2012.)

Ecologists and agronomists began to look beyond their reductionist ways and towards each other's research during this time (Gliessman, 2007). To this day, programs in Agroecology are usually found within agronomy, ecology or environmental studies departments. It is in these fields that a demand for such knowledge exists (Francis et al, 2009).

Agroecology is most frequently defined as “the integrative study of the ecology of the entire food system, encompassing ecological, social and economic dimensions” (Francis et al, 2003). Agroecology is often described as a theory, practice and a movement (Wezel et al. 2009). Using such a broad scope for understanding and improving upon agroecological ecosystems



**Figure 2: Food Production Venn Diagram - IAASTD, 2009**

allows ample opportunity for the exploration of alternative agri-food movements already in practice. It also means that the field is continually growing and encompassing new bodies of knowledge.

“Agroecology” as a term is not frequently heard among members of alternative agri-food movements though the missions of these movements often align with agroecological practices. The growing popularity and occurrences of alternative agri-food movements influenced agroecology as a science and is responsible for it gaining momentum as an academic discipline (Fernandez et al. 2012). As agroecology is still considered being of academia, it is important for the discipline to continue to look to these alternative movements to support its research and expand its knowledge base.

Presently, agroecological literature as it relates to economic relationships to agriculture in the United States focuses mainly on how to support those growing in a sustainable manner. Agroecologists encourage farmers to sell locally and produce value added, specialty or higher quality produce so that they can subsidize the higher costs of growing sustainably. Consumer education is also stressed. If consumers are educated about the actual total costs of food production then they may be willing to spend more money on food to ensure the health of themselves, their community and the environment. Buying locally will help to support their local farmers and keep money circulating within their community, which in turn will build their local economy (Gliessman, 2007). Both these strategies rely on the willingness and *ability* of consumers to spend more money on this more expensive foodstuff.

## Closed Loop Systems

Industrial agriculture thrives on the belief that a farm is the most profitable when it produces the largest possible output, or end product, regardless of the amount of inputs used or the environmental degradation caused. Cheap fossil fuels, easy access to chemical fertilizers, pesticides and herbicides and government subsidies that promote industrial agriculture in the United States allow for the model to thrive at this point in history (Gliessman, 2007). However these resources are not self-replenishing, in fact they are finite. Unfortunately, this model of agriculture is not only creating environmental catastrophes but it uses these resources recklessly, wasting their true potential (Holmgren, 2009).



Agroecology looks at the ideal farm system as an organism. All inputs to the farm system must be found on or near to the farm. All waste products (such as manure and food scraps) are added back to the system as nutrient rich compost. Crops are rotated and intercropped. Agroforestry provides multiple yields while requiring little maintenance after initial development. These practices are part of what is referred to as a closed loop nutrient system. The more closely our agricultural systems can mimic natural systems, the more resilient and less harmful to the environment the system (Gliessman, 2007; Mollison, 1988).

Our current economic paradigm in the United States is similar to industrial agriculture as it thrives on the belief that unlimited growth and the cheapest inputs are essential for success. This ideal exploits our limited resources while also polluting them and doesn't take into account all of the potential costs of the system (Chomsky, 2009; Brock and Taylor, 2004). Again, it is physically impossible to sustain such a system given the finite resources available on the earth. Perhaps by creating a closed loop system to define our economic systems, agroecologists and AFIs can show that such a model can work outside of nutrient cycling and retention. Agroecology has the opportunity to acknowledge and strive to create a paradigm shift within our economic systems in the United States, as one of the major commodities that all people must acquire (most often through economic means) is food.

### **Sustainable Agriculture: a Leader in Creating Equitable Systems**

In his book "Civic Agriculture" (2004) Thomas A. Lyson describes how farmers in North America, fed up with the current trajectory of big agriculture and globalization, began to redevelop community-based agriculture, initially without any government assistance. He calls this rebirth of small scale agriculture "civic agriculture" because of its ability to build community and strong local economies. Civic agriculture localizes production and consumption while bringing jobs to a community and minimizing the negative impacts of agriculture on the environment. In this way, those practicing sustainable agriculture inadvertently adopted new strategies for meeting community needs outside the current economic model in the United States.

"Civic agriculture does not currently represent an economic challenge to the conventional agriculture and food industry, and it is unlikely to pose a challenge anytime soon. However, it does include some innovative ways to produce, process and distribute food. And it represents a sustainable alternative to the socially, economically, and environmentally destructive practices

that have come to be associated with conventional agriculture. The term “civic agriculture” references the emergence and growth of community-based agriculture and food production activities that not only meet consumer demands for fresh, safe and locally produced foods but create, jobs, encourage entrepreneurship and strengthen community identity.”

-Thomas A. Lyson, 2004

## Challenging the Existing Economic Paradigm

If the availability of healthy, local and sustainably cultivated produce is not a possibility for all people in North America (and the world) then it is in part the responsibility of agroecologists to determine ways to change this. If people are unable to afford food that is nourishing and supports a healthy lifestyle and ecosystem then we must change the systems that allow this to occur. Economic practices in the U.S. and abroad take on a bottom line approach. As we see in our models for industrial agriculture, when this approach is taken many negative externalities occur and are often dismissed. By the end of the 20<sup>th</sup> century, only eight cents of every food dollar went into a farmer’s pockets due partially to this economic approach. Larger scale agriculture is able to produce more at lower economic cost (Gliessman, 2007).

Coming from backgrounds in biological and social sciences, we can assume that most agroecologists have a fairly basic understanding of global economics outside of its associations with agriculture. Luckily, agroecologists are trained to look outside the box and to investigate various bodies of knowledge. As agroecologists, we can look to different disciplines to see how they challenge the current economic paradigm. “It is essential to build bridges and connections among and beyond our disciplines in production agriculture, as well as beyond the farm gate into the rural landscape and community. Fields of sociology, anthropology, environmental sciences, ethics, and economics are crucial to the mix. They provide additional vantage points from which we can view the food system anew, as well as insights on how to establish valuation criteria beyond neoclassical economics (Francis et al. 2003).”

Agroecologists can look to AFIs that are successful in meeting the food needs of its community members, conduct research into why this is possible and figure out how this can be replicated. We can challenge the bottom line approach that places value in its end product despite numerous negative externalities by investigating where people place value in their personal food systems. We can then present our gained knowledge within a field that is gaining worldwide popularity in addressing some of today’s greatest challenges.

## Research Question

1. How is value perceived in an alternative food movement? : The Urban Farm Collective
  - a. In what ways do UFC members and their values challenge the ideas of traditional economics?
  - b. How does the UFC provide an alternative model with improved distribution of benefits that could be used elsewhere?

## Research Objectives

This paper will examine where people place value within The Urban Farm Collective, an AFI in North and Northeast Portland, Oregon, USA. The Urban Farm Collective provides a unique opportunity to investigate alternative economies at the local level as minimal monetary funds are used in its functioning. By determining if people place value on other aspects of the AFI outside of the commodity of food, we can begin to design local economic systems that flourish outside of the bottom line approach.

Secondly, this paper will also explore a number of ideas developed from different academic disciplines and social movements. These disciplines and movements, already rooted in the belief that our current economic systems are flawed, provide an excellent stepping-stone for agroecology to expand its research and AFIs to start taking action.

## Introduction to the Urban Farm Collective

“Our mission at the Urban Farm Collective is to bring neighbors together to transform vacant lots into neighborhood food gardens for the purposes of education, community building and improving food security.”

- Urban Farm Collective Mission Statement



## Examining Value

I propose that one way to challenge the current economic paradigm is to show that people place value outside of monetary standards. While it may prove difficult to place a price on these valued items, practices or beliefs, by identifying what they are we can begin to create systems in which they can thrive. The Urban Farm Collective functions with minimal funds and exchanges its food in what it calls its barter market. The commodity the UFC provides is food. The commodities the members of the UFC identify are much more.

## Early Days

In 2009 three friends, Alissa Hartman, Dreya Mancini and Janette Kaden, frustrated by the limited space for vegetable gardening their small urban yards offered, and excited about the community building potential, decided to grow food their own way. Each of these friends chose a number of vegetable varieties to grow and then shared the abundance, ensuring them the bounty they desired. Realizing this was a great way to take advantage of small garden spaces in their urban environment, they put out a call to their community to join them in their fruitful endeavor. The response was enthusiastic and with a group of about 12 members, The Urban Farm Collective (UFC) was born.

Lisa Koluvek, Kaden's neighbor offered her extra urban lot as a space to garden and Koluvek garden, on the corner of NE 7<sup>th</sup> Ave. and NE Skidmore St., became the first official plot of the UFC. In those early days, planning meetings were frequent and well attended; people were eager to share their ideas about how to create more abundant vegetable production in the city. Getting these busy and ambitious pioneers into the garden was more challenging. Janette, also the owner of a popular local restaurant called The Tin Shed, became interested in the potential for supplying the restaurant with produce grown blocks from it's front door. Others became interested in growing food to sell and supplement their incomes.

Between the Koluvek garden and the personal gardens of the original members, excess vegetables were produced. These vegetables were then sold on the garden patio at The Tin Shed where a small produce market was open to the public. Sales were low and tensions arose as the

members decided how to split the meager profits. It became evident that the UFC was not going to provide much income through selling its produce and the restaurant required more produce than the collective could grow, to the tune of thousands of pounds. There were economies of scale at play and the process of developing a better way began.

## Barter Market

After that first garden season, it was clear that involving money only created stress in an environment that was otherwise a great community builder. In the winter of 2009 the UFC decided to switch to a barter market for the next year's growing season. Instantaneously the tensions from the year before fell away and the UFC's mission started to come into focus, to address issues of food justice in the city.



**Photo 1 - Food Ready for Market**

In 2010, the UFC grew to four urban plots. Participants delivered organically grown produce to Kaden's front porch where a modest, weekly barter market ensued. Trades were tracked on pieces of scratch paper and food was given freely to folks walking or riding bicycles past the front porch. The following year, with the addition of three more gardens, the barter market moved to the parking lot of the Masonic Lodge in the Mississippi district. Prices remained as they were set the prior year and the tracking system was still rudimentary, but functional. Holli Prohaska, an original member, became the

barter market manager and continues to oversee the functions of the market today.

The following year the barter market moved to its current home at St. Andrew's Catholic Church in the heart of the Alberta Arts District. One of the 14 N/NE gardens, Common Bond, is located on the church's property.

Originally each item at the market held a certain value to be exchanged for a member's "slugs" (see below). This often caused confusion at the barter markets as many members were unsure why each produce item had its value. As most people were happy with the amount of produce they received for their work or donation, it never caused any serious problems. In 2013,

the value of produce at the barter market changed based on weight. Vegetables and fruit are divided into their categories: light, medium and heavy. This system worked a lot better and allowed for a shorter wait time in the market line.

Weight	Pounds per Slug	Examples of Produce Items
<b>Light</b>	1 lb. = 1 slug	Lettuce, kale, chard, bok choy, spinach (leafy greens)
<b>Medium</b>	1 lb. = ½ slug	Carrots, beets, radishes, beans, tomatoes*, turnips, kohlrabi, potatoes, small zucchini, cucumber
<b>Heavy</b>	1 lb. = ¼ slug	Winter squash, large zucchini, pumpkins, melons
<b>Other</b>	½ lb. = 1 slug	Herbs

**\* Tomatoes change value depending on time of season and abundance**

As many of the members of the UFC have a variety of skills, talks about expanding the barter market occur regularly. One member of the planning team, Corinna Chase, was successful in fermenting and bottling kombucha to bring to the market in 2012. Other ideas for barter include massage, acupuncture, services such as car repair or clothes mending and value added products such as jam and herbal preparations.

**Slugs**

Ari Rosner, active in the Community Engagement Committee at the Alberta Cooperative Grocery when he joined the UFC, volunteered as a working member and took on the role of treasurer. Rosner, along with Stephen Osserman, a UFC grower, and the help of other members, began to develop an alternate currency. At that time this currency, affectionately referred to as “slugs”, was based loosely on current market prices for organic produce in Portland.

Members can earn slugs through volunteering their time or donating a resource such as land or water. Land-sharers receive 100 slugs while water-sharers receive 50 slugs. One hour of time spent volunteering earns a member one slug.

In 2011 Osserman created an online interface where garden managers could upload the hours of their apprentices, volunteers and themselves as slugs. At the market, the members used their slugs to acquire their produce. Prohaska and other market helpers could then load the used slugs onto the interface. The used slugs are taken from the total amount of acquired slugs and the balance remains. This interface is still used today and is reported on yearly to assess yields and distribution of food.

## St. Andrew's Catholic Church and Food Pantry

Excess food from the market is donated to St. Andrew's Church on NE Alberta Street. This church, which is close to many of the gardens in the UFC, is extremely engaged in the betterment of its community. The produce donated by the UFC is distributed to clients of their food pantry. This donation counts for a majority of the fresh produce that the church is able to share.

In exchange for the produce, St. Andrews gives the UFC space for the market as well as a place to hold meetings and workshops. The UFC hopes to encourage more parishioners and food pantry clients to volunteer in the gardens. In 2013 UFC members attended church meetings and sent fliers home with food pantry clients but had little success in recruiting volunteers. Both the UFC and St. Andrews look forward to future, more engaged collaboration.

## Member Roles

After the first year, the UFC took on a "1000 hands" approach to its volunteerism. As the number of volunteers and donated garden plots grow, the UFC continues to develop a more defined structure. In its

first year members were either on the planning team or in the garden. The second year volunteers took on roles such as working owner or grower. Later working owners became Garden Managers or apprentices depending on their level of knowledge



**Photo 2 - UFC Members Working Together**



and commitment. Member roles are added and evolve as needed. Defined roles prior to 2014 are listed and explained in the table below.

<b>Roll</b>	<b>Description</b>	<b>Years in Use</b>
<b>Grower</b>	Growers grow food on their private land and bring it to market. They are given slugs in exchange for their produce and can then participate in the barter market.	2010 – present* *Not present during all seasons
<b>Working Members</b>	Working members volunteer their time in the garden in exchange for produce. This role evolved into multiple roles depending on the level of commitment of the UFC member.	2010 - 2011
<b>Garden Manager</b>	The Garden Manager manages one of the gardens. They are in charge of cultivation, harvest, bringing food to market and providing garden based education to apprentices and volunteers.	2011 - present
<b>Apprentice</b>	Apprentices are assigned to one of the gardens. They commit to one full growing season (generally 1-2 garden work parties a week) in exchange for a garden based education. Apprentices are encouraged to choose a project of interest to implement at the garden they are assigned.	2012 - present
<b>“Volunteer”</b>	Not an officially named role, volunteers commit as much of their time as they desire at any garden they desire. They receive slugs for their time but are not required to make further commitment. Members that drop in without an official role do not have a given title at this time.	2011 - Present
<b>Market Manager</b>	The Market Manager is Holli Proshaska. She sets up and takes down Monday Barter Markets. She checks out members, exchanging their slugs for produce. She takes note of slugs used and reports them on the slug interface.	2010 - Present
<b>Market Helper</b>	Market Helpers assist Market Manager in all duties.	2010 - Present
<b>Treasurer</b>	The treasurer is Ari Rosner. He manages the UFC bank account and repays managers that use their own funds to make purchases for the UFC. He assists in slug development and UFC market prices.	2010 - Present
<b>Garden Manager Liaison</b>	The Garden Manager Liaison was Carissa Pereira in its first year. The Liaison facilitates Garden Manager meetings, assists Garden Managers in their needs and connects them to the Planning Committee.	2013 - present



<b>Information Systems</b>	Stephen Osserman and Reid Smith take on all web-based roles. Stephen Osserman facilitates the slug interface while Reid Smith manages the UFC website. They both assist all UFC members in their computer-based needs.	2010 - present
<b>Director</b>	Janette Kaden is the director of the UFC. While there is no hierarchy within the collective, Janette facilitates many of the meetings and oversees new members. Janette is an original member of the UFC and commits the greatest amount of personal time to making sure it functions well. She is often seen as the face of the collective and promotes the UFC through interviews, community meetings and even a TED Talk.	2009 - present
<b>Land-Sharer</b>	Donates their land (yard space) for growing produce.	2011 - Present
<b>Water-Sharer</b>	Donates water for UFC plot	2011- Present
<b>Planning Committee Member</b>	Planning Committee Members make plans for the growth of the UFC. They tend to take on small roles and complete specific tasks or, after time and a significant time commitment, end up taking on a larger role such as the Garden Manager Liaison.	2009 - Present
<b>Administration</b>	Administration roles vary over time. The 2014 will see a large influx of administration roles.	2009 - present

## Community Partnerships

The UFC works with several community partners. The relationships are mutually beneficial. The following are three organizations that are particularly integral in the workings of the UFC.

### OSALT

Angela Goldsmith, Garden Manager of the Fargo Food Forest, connected the UFC with the Oregon Sustainable Agriculture Land Trust (OSALT). Through this relationship the UFC gained 501(c)3 nonprofit organization status. OSALT is an organization that keeps land in trust to be used for sustainable agricultural practices. The UFC now has two gardens under OSALT trust. As OSALT focuses on research and education, the UFC



aligns its mission to stress garden based learning ([fhsws.com/OSALTweb/](http://fhsws.com/OSALTweb/) 2014).

Land sharers are able to receive tax deductions for land donations because of the relationship with OSALT.

### **The North Portland Tool Library**

The North Portland Tool Library works just like a library. Instead of lending books, this library lends tools ([northportlandtoollibrary.org/](http://northportlandtoollibrary.org/) 2014). As tools are expensive and some gardens are lacking in certain tools, the Tool Library is an extraordinary asset. Some tools, such as a broad fork, are expensive and only needed during one part of the season. Being able to borrow such tools allows the UFC to save funds for other needs.



### **Oregon Tradeswomen, Inc.**

Oregon Tradeswomen, Inc. works to promote successful women in the trades through hands on education in the trades. During each training session, the women in classes build structures for local non-profits. The non-profits donate the resources for building. The Urban Farm Collective collaborates with Oregon Tradeswomen, Inc. and in so receives infrastructure such as tool sheds, produce boxes and garden beds ([www.tradeswomen.net/](http://www.tradeswomen.net/) 2014).



### **Sustainable Agriculture Practices**

Susan Weinke, a member of the UFC since its infancy, implemented a plant rotation practice within the gardens. Each garden is given two to three plant families to focus their production on. In sustainable agricultural practices this promotes healthy soils and deters pests.

Garden Managers are given space to grow vegetable varieties of their choice, as well as companion plant with their given plant families, to promote plant health and use space wisely.

To work with the Urban Farm Collective one must uphold the sustainable agricultural practices it promotes. This includes rotation of plants, the use of compost as fertilizer and the use of natural methods for weed and pest control. No artificial chemical fertilizers, herbicides or pesticides are allowed on UFC land.

Garden Managers are free to implement their own garden practices as long as they fit within UFC guidelines. Some gardens implement permaculture practices while others use techniques used in biodynamic agriculture.

## **Fundraising**

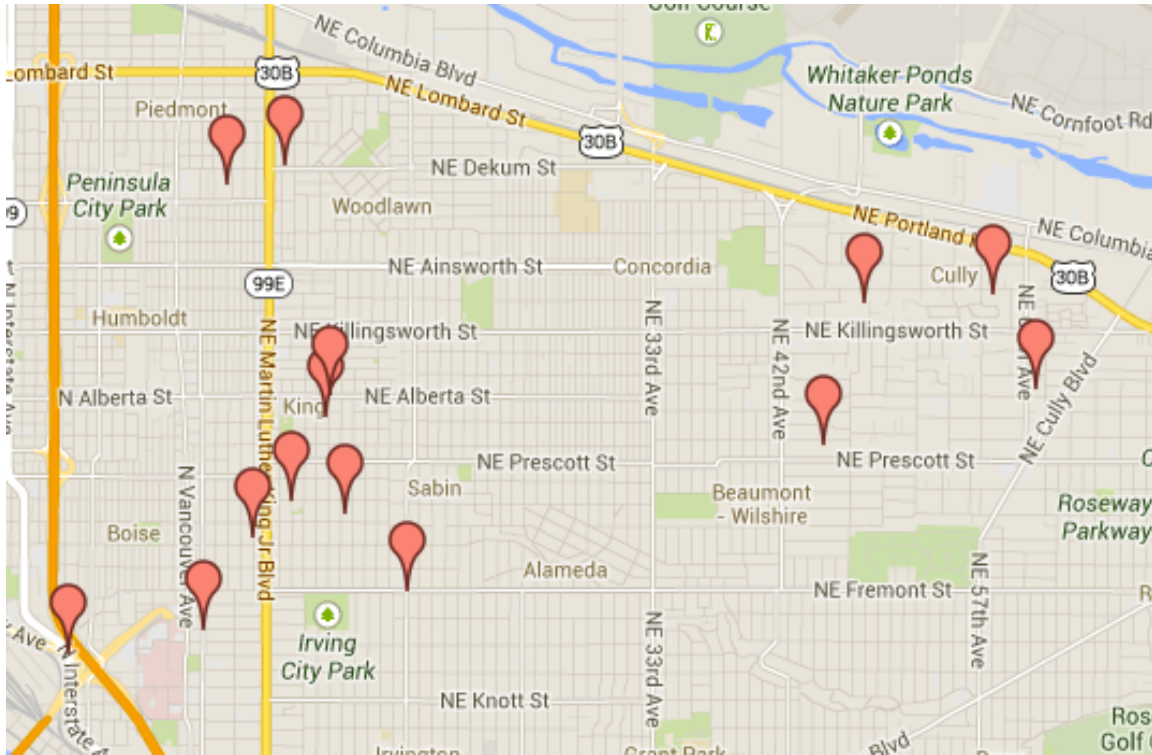
While the UFC relies mostly on scavenging resources and materials and donated time and energy some funds are needed to cover costs such as seeds, compost, mulch and one time costs such as signage. The UFC seeks funds through grants, fundraising events and donations. The UFC received their largest grant in 2012 from the “Seeds of Change” organization.

## **Nodes**

Several more gardens joined the collective in 2013 making a total of 14 gardens in N and NE Portland. As new neighborhoods took on similar missions, the UFC defined each location as a “node”. Community members from Peninsula and SE Portland became eager to start collectives in their neighborhoods. The Peninsula node brought on two gardens in its first year and the SE node brought on one. Both neighborhoods are working to establish a localized base and barter market.

As the UFC expands, figuring out ways to help new nodes become autonomous is a priority. A lot of hard working dedicated volunteers make the collective what it is today. A community with the same priorities is needed to create such success. The UFC wants to help more neighborhoods in Portland and cities around the world realize the benefits, from gaining access to delicious produce to making great friends, of growing food in our own yards. The UFC

welcomes help from other community building organizations in Portland such as the Northeast Portland Tool Library and Oregon Tradeswomen and would not be as successful without them.



Map 1 - Garden Locations in N and NE Portland

## Yields

Since 2010, the UFC has collected data reporting the year’s activity. A final report is submitted to OSALT each year. Such reports include data on yields, number of participants, slugs earned, slugs redeemed and donations to the St. Andrew’s food pantry.

Year	Yield in Pounds	# of Participants	Total Slugs Earned	Total Slugs Redeemed	Pounds Donated to Food Pantry
2011	2,222		2,242.75	785	
2012	3,006.75	172	3,546	2197.25	710.25
2013	3,024	211	2,012		502

## Methodology

### Soft Systems Methodology

Soft Systems Methodology (SSM) is a style of investigation that stresses the importance of holistic observation. A subset of Systems Thinking, it approaches a subject by analyzing how it functions as a combination of its parts rather than how each part functions on its own (Ison, 2008). The introductory course in Agroecology at UMB emphasized the importance of using SSM in research and problem solving.

Soft Systems Methodology and Systems Thinking are especially important in understanding farm systems. Reductionist thinking provided great strides in the advancement of agriculture over the last 150 years. Richard J. Bawden (1991) exposes the difficulty in creating systemic change within agriculture when the current agricultural paradigm produced large quantities of food. Only recently are we truly aware of the implications of the industrial agriculture model on the environmental and social systems. It is by looking at the parts of the whole together rather than as the “manageable bits” of reductionist science that these negative externalities became clear.

Looking at the UFC from the perspectives of a garden manager, member of the planning committee and as a researcher allowed me to assess the work of the collective from several angles. This greatly attributed to my ability in using a systems thinking approach in my research. The UFC barter market made me curious how successful an organization could be if money played a minimal role. Looking at value more holistically within the UFC might provide an example of an economic microcosm that could later be applied on a larger scale.

### SWOT Analysis

With the assistance of two planning committee members, Reid Smith and Carissa Pereira, I developed a SWOT analysis. A SWOT analysis is a tool used to identify new opportunities and potential threats within a given scenario. SWOT itself stands for Strength, Weaknesses, Opportunities and Threats. It is a tool used in SSM. The SWOT analysis in the case of the UFC

was developed in order to investigate potential solutions to challenges that the UFC is engaged in exploring.

<b>Strengths</b>	<b>Weaknesses</b>
<b>Opportunities</b>	<b>Threats</b>

### Action Research

Action research is a component of systems thinking. One is best able to understand a system through participating within it. My involvement, especially as a member of the planning committee within the UFC allowed me for insights unavailable to an outsider.

### Urban Farm Collective: Garden Manager



**Photo 3 - 2013 UFC Greenhouse Garden**

My original introduction to the Urban Farm Collective was through volunteering as a Garden Manager. Being my happiest in the garden, I chose work with the collective to improve my skills as a gardener and educator while I worked elsewhere to save money and formulate plans for my thesis work. Little did I

know at the time that I had walked right into a great platform for such work. Working as a Garden Manager gave me first hand encounters with the challenges and solutions of one of the main roles available to UFC volunteers.

I chose to manage the Greenhouse or Singer Garden with another volunteer and friend, Erin Gilbert. During our time there we cared for a majority of the seedlings for the 14 gardens in the N/NE node. With the remaining space we grew plants from the Cucurbitaceae and Asteraceae families, as designated by the plant rotation model of the collective. We provided education for three apprentices that remained most of the year and around 10 volunteers from the neighborhood and surrounding area.

## **Urban Farm Collective: Planning Committee**

As I developed my thesis structure I joined the Planning Committee of the UFC to learn more about its inner workings and its plans for moving forward. Through working with the Planning Committee I was able to meet key stakeholders, understand the successes and failures of the collective and help by completing small, mostly outreach related, tasks. My involvement with the Planning Committee gave me a much broader understanding of the collective that I would not have experienced through volunteering as a Garden Manager.

It was during one planning meeting that I met Nathan McClintock, an Urban Agriculture professor at Portland State University. McClintock spent the last few years observing and assisting the UFC in its mission. He works with his capstone classes to assess the functions, the production and the impact on the community of the UFC. Nathan agreed to assist me in my thesis work as I needed an advisor in Portland and as he was already working with the UFC. In return for his help, I became a liaison between his class at Portland State University and the UFC.

## **Portland State University: Urban Agriculture Capstone Course**

In 2013 McClintock gave his class in Urban Agriculture the assignment of analyzing the make-up of the UFC and coming up with ideas for helping it run more smoothly. The class split into three groups. The first group investigated the current state of affairs within the UFC. They did so by conducting a survey for the general UFC population and asking questions to key stakeholders of the UFC. They also assessed the catchment area of the UFC and the demographics of the neighborhoods it serves. The second group assessed the problems the UFC faced through talking with members, conducting interviews and using data gathered by the first group. The third group came up with potential solutions to these problems by investigating other AFIs and using their own knowledge.



## Survey

With my help, the PSU students in the first group designed a survey to explore major components of the UFC and the community it serves. The survey asked questions specific to reasons for involvement, type and duration of involvement, demographics of participants, satisfaction with the UFC, and food purchasing habits. The blank survey and survey results can be found in the appendix.

Google Forms provided the format for the survey. We sent the survey to over 500 former and current UFC members. We sent the survey out three times over a period of three weeks and received 62 responses.

## Interviews

My own research included interviewing nine key stakeholders in the collective and one from St. Andrew's Church. I chose to interview a variety of people whose involvement with the Urban Farm Collective exceeded one year. As the first year volunteers had not experienced a full years season, I felt they could not reflect upon the full experience of being a member at that time. The survey results also showed a large number of first year member participation. The chart below shows the interviewees, their involvement with the Urban Farm Collective and the number of years of engagement at the end of the 2013 season. Most of these members continue their work today.

Name	Member Role	# Years Engaged
<b>Janette Kaden</b>	Director/ Planning Committee	5
<b>Holli Prohashka</b>	Market Manager/Planning Committee	5
<b>Ari Rosner</b>	Planning Committee	4
<b>Stephen Ossermen</b>	Planning Committee/ Web Team	4
<b>Reid Smith</b>	Planning Committee/ Web Team	3
<b>Erika Abad</b>	Garden Manager	3
<b>Carissa Pereira</b>	Garden Manager/ Planning Committee	2
<b>Charlie Foster</b>	Apprentice	2
<b>Erin Gilbert</b>	Garden Manager/ Planning Committee	1
<b>St. Andrew's Church Representative</b>	Food Pantry Volunteer at St. Andrew's Church	N/A



Interviews lasted from forty-five minutes to one and a half hours. Garden managers and apprentices received the same questions in their interviews. These questions focused on why members chose to be involved, why they continue to be involved, and their personal feelings about current food trends in North America.

I interviewed Kaden twice. The first interview explored the history of the UFC and certain member roles and involvement over the years. This interview helped answer my personal questions about the UFC so that I felt more prepared going into the rest of my interviews. I started interviewing six months after joining the Urban Farm Collective. This gave me an advantage of exploring more in-depth questions in my interviews. The second interview with Kaden somewhat mimicked the Garden Manager Interview while adding new questions specific to her role in the UFC. Interviews for Prohashka, Ossermen and Rosner also varied depending on their involvement and roles.

I co-conducted the interview with the St. Andrew's Church food pantry representative with a PSU capstone student. This interview focused on the relationship of St. Andrew's Church to the UFC and how the relationship could be strengthened.

A sample interview is located in the appendix.

## **Findings and Discussion**

### **Survey**

The following results indicate member's level of income, member's reasons for involvement, member definitions of food justice and ability to access food. I chose to include information about demographics to illustrate the lack of diversity, which I will reflect upon in the "challenges" portion of this document as well as in my conclusions. Member's reasons for involvement reflect their values. As it is the mission of the Urban Farm Collective to address the food needs of N and NE Portland, members were asked to define food justice.

## Demographics

According to the survey, the Urban Farm Collective caters to a very specific demographic. While all community members are invited to participate and the UFC aims to specifically assist those who are not having their food needs met, a few trends have emerged in its five years of existence. Of the surveyed members, nearly three-fourths of members are between the ages of 18 and 34 making it a young community. A majority of the members surveyed have a university degree. All but six members surveyed identified as Caucasian.

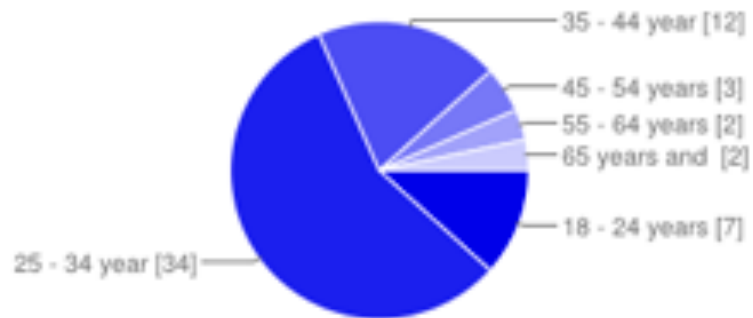


Figure 3 - UFC Member Age

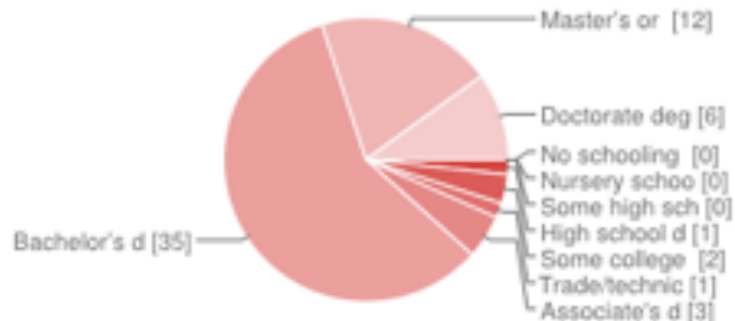
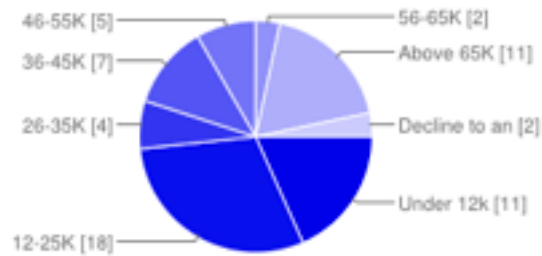


Figure 4 - UFC Member Education Level



**Figure 5 - UFC Member Ethnicity**

The U.S. Department of Health and Human Services states that the 2013 poverty level was \$11,490 for a single person household ([www.ocpp.org](http://www.ocpp.org) 2014). Assuming that each member identified as a single person household at least 18% of UFC community members are at or below the poverty line according to the survey.



**Figure 6 - UFC Member Income Levels**

### Reasons for Involvement

The participants of the UFC survey received a list of 17 potential reasons for involvement. They were able to select all options that applied to them. Each option resonated with a number of participants. Of the 62 participants, 40 or more of the participants selected the four following reasons for involvement.

1. To increase access to fresh food in the community
2. Community Building

- 3. Food Justice
- 4. To learn more about gardening

Note that to “supplement food needs” came in fifth with 34 members. The reasons for involvement indicate what is important to the members about the collective, or in other words what they value within the collective.

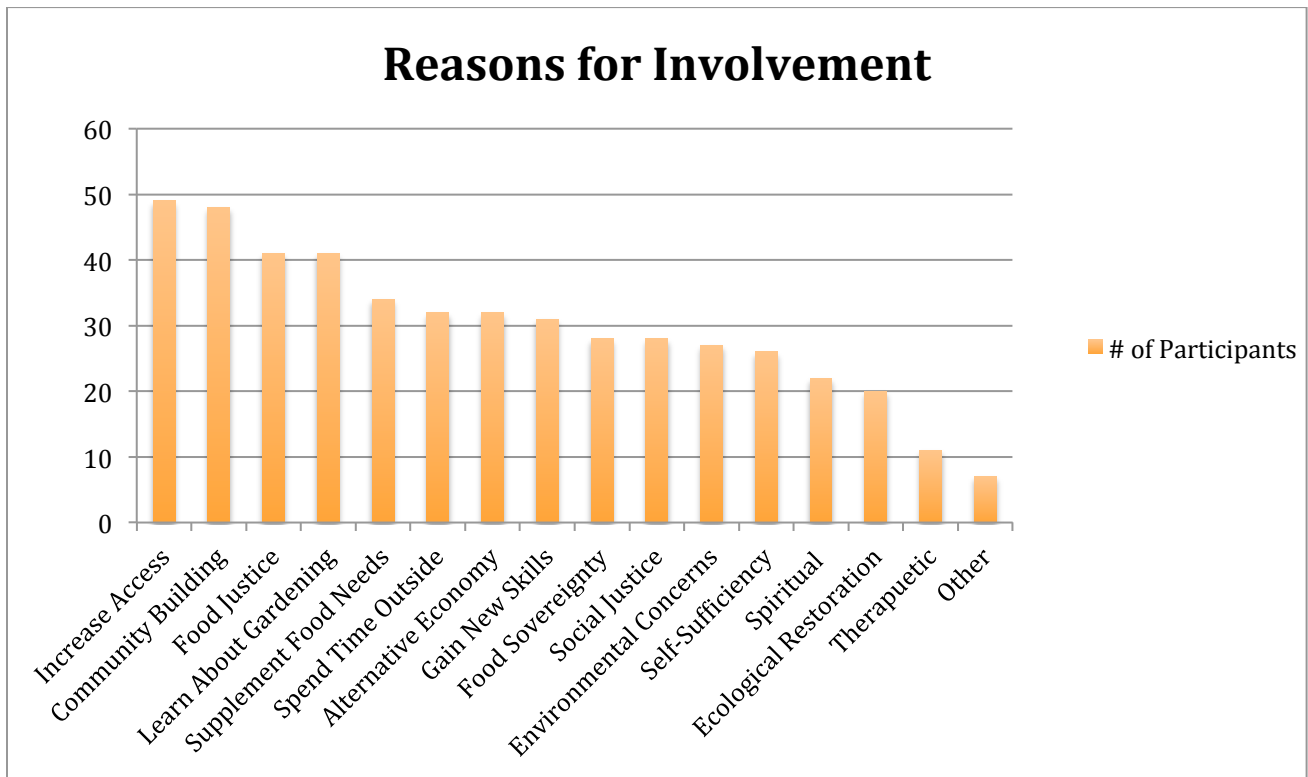


Figure 7 - UFC Member's Reasons for Involvement

### Definitions of Food Security

Survey participants were provided with an open box to answer several questions in detail. In one of these boxes participants were asked to define “food security”. The following are some of these definitions. Based on these definitions it is clear that UFC members believe that food justice does not simply imply that people must have access to adequate food. It also calls for food production that is sustainable and regenerative and allows people to eat culturally appropriate food that is nourishing for their bodies without worry that political or economic factors will prevent this.

“Not having to worry where your next meal is coming from. On a larger scale it is having a sustainable and regenerative food system that can continue to provide for our needs rather than mining the soil, producing tons of green house gases and losing top soil at an alarming rate.”

“People having access to plentiful, nourishing, affordable and non-toxic food, that's not dependent on their income, or amount of time they have, mobility, or other life factors that may arise. Knowledge that that plentiful, nourishing, affordable and non-toxic food will remain.”

“Food security is the absence of hunger. It is individuals and families being confident that they will have what they need for the week to feed themselves and their loved ones. It is more than just "enough" food. Food security includes access to a wide variety of fresh produce that allows individuals to maintain proper nutrition and prevent disease.”

“Access to adequate nutrition without reliance on insecure systems (imports, fossil fuels, etc.). It may require redundancy to account for the inherent risks associated with food production through farming/gardening.”

“Access to healthy, affordable and culturally appropriate food.”

“Food security exists when an individual's nutritional needs are met without being at the whim of economic and political forces.”

“Having stable and sustainable access to fresh food that is not dependent on large, overstretched, overworked and fragile supply chains.”

### Ability to Supplement Food Needs

Nearly three-fourths of surveyed members say that the Urban Farm Collective has increased their access to fresh foods. While this question is somewhat flawed, not giving a neutral option, it is clear that the UFC is bringing more fresh food to its community. Being that an average of 18% of UFC members are at or below the poverty line, we can say that the UFC is helping provide needs to an underserved population.

**The UFC has increased my access to fresh food.**



**Figure 8 - UFC Member Access to Fresh Food**

## Interviews

The results from the interviews mirrored the results from the survey. As the interviews are more in depth, they gave more insights to why people hold value where they do within the collective. While the results were not hierarchical, as they appear in survey formant, it is clear that some common themes emerged in all the interviews.

## Community

By far the most common reason for involvement with the Urban Farm Collective is community building. Each UFC member interviewed mentioned this several times throughout their interview. While many of the members did not initially begin to volunteer with the UFC in order to build community, it is why most members remain with the collective for more than one year. Members all have a passion for healthy local food and many share a determination for creating more sustainable food systems among other values, interests and hobbies.

*“I get to be part of a community of people who put emphasis in what they are eating and where they are getting their food, which feels really good because it is not important to everybody and it feels good to be around people that share that with me”*

- Carissa Pereira, Garden Manager/ Planning Committee

Though member roles vary, all members gather at weekly barter markets to collect their produce. Here members are able to meet land-sharers, water-sharers, planning team members and members that work in other gardens. People are able to see what different gardens are growing, share stories about the successes and failures at their gardens and learn a little bit about what happens outside of the garden. Community extends outside of the markets in work parties, workshops, other planned community events and other gatherings outside of UFC time.



**Photo 4 - Gathering at UFC Community Event**

*“The Urban Farm Collective is kind of unique in the fact that we really do bring people together. It’s not just like a CSA where it’s just the people that work on the farm and then they deliver food. It’s like everyone that’s getting food out of it is involved in the garden somehow. Meeting each other and getting to know each other even though they are working in different places.”*

- Holli Prohaska, Market Manager

*“I love the people that are involved and I think that it’s just a really awesome thing. It’s really unique. It’s almost become like a little family, outside of my family.” – “All the people that grew the food are present and you can ask them about their food and their process because some people might have a different variety of food that you’ve never had or someone’s produce might be bigger or smaller than yours and it’s fun to be able to talk about that. Also its exciting to have this whole experience become a social thing. I think the market is where the UFC becomes a greater community. A lot of people go to different meetings and some people just go to certain gardens but it really brings everyone together which I really appreciate.”*

- Charlie Foster, Apprentice

Community not only exists between the members of the collective but is also built around the garden. Locals see people in formerly vacant lots or a neighbor’s backyard, transforming them into lush gardens. When people are outside their homes working, people notice and stop to investigate. They ask questions, meet their neighbors and often want to help out or share their garden knowledge and traditions. Erika Abad recalls her early days of gardening with the Urban Farm Collective, “People come off the street. We would stop people in their cars. The garden is just so sexy, they just can’t help it!” Not only does such work provide a place to interact with the local community, it provides for a better understanding of that location.

*“ I feel more of a connection to place in more different communities. I feel like just spending time outdoors in different neighborhoods gives you a sense of place better.”*

- Stephen Osserman, Planning Committee

## **Education**

With the UFC’s relationship to OSALT, education is a main goal of the organization. The apprenticeship program is designed to provide the apprentice with a season long education in sustainable agriculture. Workshops are organized to place specific emphasis on gardening practices from composting to canning. Community members that know little about gardening or

food sovereignty are encouraged to participate and learn about where their food comes from and how it grows.

*The UFC is “empowering people to make their own food choices, figure out how to sustain produce needs in a way that they can do it and also depend on their local community to help them do it. Some people feel daunted by the task of growing their own garden on their own. We have little laboratories of educational boxes where we are teaching people how to grow food and they actually get their food from that. It’s just not a class and theory and such.”*

– Carissa Pereira, Garden Manager/ Planning Committee

*“Everything I know about food and growing food, garden tools that can be used, everything, from starting a garden from scratch and what goes into that to planting seeds... to harvesting food and saving seeds. All the process I’ve learned through the Urban Farm Collective.”*

– Charlie Foster, Apprentice

Many members of the UFC that take on the role of garden manager or join the planning team have the opportunity to improve on their skills as educators and leaders. Carissa explains, “I get to have an arena to educate and be educated about growing food, preparing foods and herbs even too.” Most interviewees expressed that the education the UFC provides for members, the platform they have to gain new skills as educators or the unexpected education they receive from their participation are key reasons for their involvement with the collective.

*“When Reid (garden manager at Chicken Wing) works he likes to tell everyone what he is doing and why he is doing it and other ways you could do it that are fine too and why they work. I think I’ve sort of adapted that too while I’m gardening. We’re all learning together”*

– Charlie Foster, Apprentice

*“Education is a huge piece of empowerment. Having the knowledge to support yourself, your thoughts and beliefs and be able to teach those to other people I think is a big piece of empowerment. Being able to make a difference for people with your knowledge.”*

- Holli Prohaska, Market Manager

## **Barter Market/ Alternative Economy**

According to Ari Rosner, treasurer of the UFC and early member, the set up of the UFC barter market is unique to collective. While he points out that the system is more like a gift economy rather than a traditional barter system, he agrees that it is one of the more intriguing



parts of the collective. UFC director, Janette Kaden, recalls the early days of the collective when money still exchanged hands:

*“It wasn’t a free loving giving energy... Talking about real money made it a dynamic and an energy that was really painful to get through. In some of those (planning) meetings where we talked about how do we value this stuff, how do we distribute the money, were so heated that it felt like it was defeating the purpose. The second the real cash market left the equation and the barter market entered the equation it’s like all of the energy shifted. It became one of the more compelling parts of the project.”*

It is clear from the interviews that many of the members feel that current economic systems in the United States are flawed. They feel that these systems are not only unable to meet their needs but that they actually *hinder* many people’s ability to acquire healthy and local food.

*“... My opinion of society and social change and how money isn’t making anyone happy, it seems like a really*

*useful thing to know how to grow things and how to barter, how to set up a barter system and get people to get into it however you can.”*

– Erin Gilbert, Garden Manager at the Greenhouse Garden

*“People are really all about making money and making a certain specific thing and not really focusing on what’s important about food and why we produce food and what quality really means about food. I think a lot of resources are wasted in making things.”*

– Charlie Foster, Apprentice at Chicken Wing

Some members of the UFC are attracted and join because of the alternative approach to economics. They feel disillusioned that the importance of money and the economy often supersede people and the environment. While the UFC members interviewed have different opinions on how such a model could work on a larger scale, it is clear that UFC members feel empowered by the UFC barter market. Creating change on a small scale provides hope that they can occur more broadly in the future.



**Photo 5 - UFC Members in Line at Barter Market**

*“I think it’s awesome. I really like that there is no money. I like that it’s all trading. It makes it really friendly and it makes it really even. There doesn’t really feel like there is a hierarchy when you’re there. It’s like everybody is there together and on the same page, working for the same things.”*

- Reid Smith, Garden Manager/ Planning Committee

## Addressing Social and Environmental Needs

Many members of the Urban Farm Collective feel obligated to do their part in creating systems that better meet the needs of their local and global communities. Their membership to the collective shows such a desire to change our food systems and/ or economic systems. Because of this, garden time or time gathered at the barter market also become platforms for addressing concerns with current systems that collective members believe are failing. They are then able to share and discuss these ideas with community members outside of the UFC.

*“When you see food as a product that becomes really scary and dangerous because things like the nutrients and other things about the quality of the food become less important than the yield and durability... we absolutely need to figure out how to do food more locally in a big way because our food industry is dependent on cheap oil which is becoming less and less cheap and more hard to get and I think we all need learn how to do some of the work ourselves”*

- Carissa Pereira, Garden Manager/ Planning Committee

*“ <The UFC> empowered me to have conversations with my family and friends back home about the whole process and I’ve been trying to get my parents to compost, something as simple as that. Or teaching my parents to grow food without miracle grow which they have always used. And to teach others what I’ve learned and help people benefit themselves through these things.”*  
*“Using medicinal plants to create tinctures or lotions or something like that is something I never thought I would even be interested in doing but now that I see it growing plentifully in my garden it’s empowered me to want to do that and make things I never thought I would make before and use plants in a way that I never thought I would use plants.”*

- Charlie Foster, Apprentice

Over the past five years the UFC grew quickly and is working hard to catch up with itself. Aware of the injustices in access to food, many members are eager to see how the UFC can use new approaches to meet all aspects of their mission.

*“There’re farmers’ markets all over the place so Portland is definitely not lacking for farmers’ markets or places to go buy really great food but I think that leaves a lot of people out because it’s expensive. There’s a huge number of people that can’t benefit from that. I don’t feel that we are benefitting enough people with the barter system and that’s one piece of the barter system that I really wish we could expand on that is getting more people that are the low income people that I think would really benefit involved. That’s been my biggest challenge at least.”*

– Holli Prohaska, Market Manager

Several of the interviewed members also mentioned the environmental problems associated with industrial agriculture. They believe that their work with the UFC is addressing these problems by keeping food local, using sustainable practices and informing members of the importance of the two.

*“Is eating about making money or is it about feeding people nutritious food? It’s become about money. Without food we don’t have anything. The way we treat it we completely take it for granted and we take our natural resources for granted. I’m disheartened by it and it’s part of the reason I garden and it’s also part of the reason I really struggle to eat well. I like bananas but bananas make no sense because bananas don’t grow here.”*

-Erika Abad, Garden Manager/ Planning Committee

## **The Food**

While most members of the collective are educated and come from generally privileged backgrounds, some struggle to make ends meet as they work to further themselves on their career paths. The UFC provides the opportunity to build skills that will assist them on their professional journey while providing them with nutritious food that supplements their income. Receiving an abundance of produce also allows members to eat healthier and introduces them to new foods.

*“It (food received at the barter marker) causes me to eat a little bit differently than I did before. I sort of rely on it for that reason. In the summer time it probably supplements like 60 or 70 percent of my normal grocery costs.”*

- Charlie Foster, Apprentice

*“Before the UFC for example I didn’t eat a lot of fruit and vegetables besides orange juice, bananas, grapes. UFC introduced me to chard, kohlrabi, kale, beets, turnips, different types of lettuces, different types of tomatoes. Even though I ate relatively well, the diversity of fruits and vegetables that I eat has grown tremendously as has my appetite to different things.”*

- Erika Abad, Garden Manager/ Planning Committee

Initially designed to bring higher yields to neighbors, most interviewed members of the Urban Farm Collective talked only briefly about the food they received in relation to their food needs. Even the members that relied on this produce to supplement their food needs only discussed this benefit when directly asked. Garden manager, Erin Gilbert claims, “it’s not really about the produce for me, it’s a bonus.” Other members dedicate a fair portion of their free time to the UFC. They believe there is no way that the food alone would be sufficient compensation for the hours they committed. However, the food is likely not the main reason for their involvement.

*“Definitely not <enough food>, but I get a lot of other things other than food such as knowledge and friendships and I actually got my job through knowing people in the Urban Farm Collective. You get a lot more than produce from the collective. Actually you probably get more other stuff than you do actual produce. And that’s just the thing. When people start growing food they discover so much more than just a tomato.”*

-Reid Smith, Garden Manager/ Planning Committee

As market manager, Holli Prohaska has first hand experience with initial reactions to the food volunteers receive. She believes that the food and the allure of the alternative nature of the barter market are what attract new members to join the collective. “People are surprised for the food they get from the time they put in.” – Holli Prohaska

The representative from St. Andrew’s Church expressed gratitude to the UFC for the excess produce it donates to its food pantry. Clients, who during the winter find little produce available in the pantry, enjoy the fresh produce that the UFC provides. They request more potatoes and tomatoes be provided to the pantry as these are the major requests of the food pantry clients. The representative also mentioned that many of the food pantry clients have gardening and agricultural knowledge, often that they’ve brought with them after leaving their home countries for the United States. Sadly, the pantry clients are unaware of the UFC and so do not become members of the collective and are unable to share their agricultural knowledge or benefit from the first choice produce of the UFC barter market.



**Photo 6 - Market Manager Bringing Produce to the Market**

## SSM and Participatory Action

My observations in the field as a member of the Urban Farm Collective gave me the opportunity to explore my own perception of value within the collective. I came to many of the same conclusions as the other members of the collective. In this way I can add to my findings though my personal views of value within the collective.

Initially I joined the UFC to get my hands back in the dirt and improve my skills as a gardener, educator and aspiring agroecologist. I realized that I would be spending time with friends but I didn't think about building a larger community before joining. I was excited about the barter market but not thinking about it as I would later in the context of this thesis.

Now, after a year and a half of engagement with the UFC, I feel I have received so much more than a few new gardening tricks. The community of the UFC is the most compelling aspect to me. Everyone I meet though the UFC has a skill to share or idea to discuss. As with problem solving with my agroecology colleagues, I feel empowered that with the UFC community I can take on some tough challenges within food systems. My life began to revolve around my UFC community as many of us shared similar passions and the desire to create change. I feel I know North and Northeast Portland far better than I did after years of living in the Alberta Arts and Mississippi neighborhoods of that region. The food, while greatly appreciated, often needed and always welcome, is secondary to me.

Outside of my assessment of value, my participation gave me the ability to see the success and failures of the collective. With my observations and through gathering the observations of others, through conducting interviews and the survey, I am able to prepare a list of suggestions. These suggestions are documented under the heading "Suggestions" later in this appendix.

## SWOT

<p><b>STRENGTHS</b></p> <ul style="list-style-type: none"> <li>- Community Support</li> <li>- Community Resources</li> <li>- OSALT</li> <li>- Access to Physical Resources</li> <li>- St. Andrew's Church</li> <li>- Barter Market (and community interest in it)</li> <li>- Member Scavenger Skills</li> <li>- Location - Portland</li> </ul>	<p><b>OPPORTUNITIES</b></p> <ul style="list-style-type: none"> <li>- St. Andrew's Church</li> <li>- Engaged Community</li> <li>- Existing local organizations that promote diversity</li> <li>- More Products at Market</li> <li>- The UFC Website</li> <li>- Communication</li> <li>- Expanding Barter Market/ Produce Availability</li> <li>- More Member Roles</li> </ul>
<p><b>WEAKNESSES</b></p> <ul style="list-style-type: none"> <li>- Summer Dropout</li> <li>- Volunteer Retention</li> <li>- Communication</li> <li>- Lack of Diversity</li> <li>- Quality of Produce Given to St. Andrew's</li> <li>- Produce Distribution</li> </ul>	<p><b>THREATS</b></p> <ul style="list-style-type: none"> <li>- Summer Dropout</li> <li>- Volunteer Retention</li> <li>- Dissatisfied St. Andrews</li> <li>- Loss of Land</li> </ul>

The SWOT analysis show trends in what the UFC does well and what it does poorly. Several themes appear, highlighting the need for improvement in several given areas. The UFC is great at getting people involved, encouraging people to donate their land and resources, providing enough food to have excess for the food pantry and scavenging for materials. They rely on their strengths of a strong community base both for resources and support as well as living in a city that provides this community and these resources. Communication, volunteer retention and lack of diversity are the biggest problems the UFC faces. These problems seem to persist each year with slight improvement.

While the SWOT analysis did provide me with some understanding of why the barter market is successful and of its shortcomings, it was most useful in showing the successes and failure of the UFC as a whole. A deeper explanation of these successes and failures as well as strategies for overcoming them can be found in the appendix.



## Conclusions

### Value Within the Urban Farm Collective

It is evident that many people within sustainable agriculture movements place value outside of monetary parameters. The Urban Farm Collective is no exception. From an outsider perspective it is easy to claim that the commodity of the collective is the food. It is the only part of the collective that could be given a monetary value. Based on the data from both the survey and the interviews, the food available at the barter market is far from the main reason that most collective members participate in and continue to stay with the Urban Farm Collective. This shows that value can exist in less tangible forms than a commodity, such as food, and should be taken into consideration in food systems. The data collected in the interviews and surveys challenge the current economic paradigm by claiming these less tangible parts of the collective hold value.

Definitions of “Food Justice” in the survey and the quotes from interviews show that members believe that much is at stake if we don’t start to honor these values outside of money. These definitions and quotes express the concern members feel over the degradation of the environment and our communities caused by industrial agricultural and poor regulation of economic and other government policy.

Perhaps more importantly than showing that people do hold value outside of monetary value, is having a venue to discuss such an idea. The UFC provides this platform. As the survey shows and through my close interactions with key stakeholders in the collective, it is evident that many members of the UFC are highly educated, likely come from privilege but are living at or below the poverty line. While these members could take advantage of this privilege and find well-paid work, they chose to live with less money but become involved in activities that supplement their needs; for example the UFC and their food needs. They see how current economic and other cultural trends are not meeting their needs and are often even hindering them as well as those around them and many globally. More dedicated members spend a fair portion of their spare time volunteering with the UFC to ensure its success and to continue the dialogue about creating better systems that meet the needs of all people and the environment.

The UFC provides a good local model because it can be set up anywhere. It provides locally and sustainably produced food to a demographic in need and has the potential to reach many more. The model uses materials that are close and available with minimal waste being generated (once a year a team of two or three trucks collects trash from the garden to dispose of). These actions mimic the closed-loop system that agroecology praises. The members make decisions democratically and meet often to discuss problems and moving forward. The collective grew much more quickly than anticipated with no instructions on how to do so. The planning team is currently in the process of documenting the reasons for this success to give other Portland neighborhoods and cities worldwide a jumpstart on how to mimic their setup.

When we return to the Venn diagram from the introduction of this paper and take into account all that is given value by UFC members it is evident that much more overlap occurs than



the diagram shows. This diagram, not unique to food production, promotes the idea that economics are outside of environmental and social realms. Where it does overlap, “cultivation and commercialization of traditional foods”, suggest again that growth comes from growing the marketplace. While this is not necessarily bad, it is a limited view.

As Levkoe and other critics of AFIs point out, the UFC is also currently serving a certain demographic and taking away government responsibility for meeting the food needs of its citizens. However, I believe that the set up of the UFC and the N/NE Portland node of the UFC both have the ability to reach many more. While such AFIs and other nongovernmental groups such as churches like St. Andrew’s are filling the government role of providing food sovereignty to its citizens, creating systems that work will provide examples of how government sponsored programs can work more effectively should they take the time to examine the models set by these pioneers.



## Why Agroecology?

Agroecology is a relatively new and fast growing field. Experts realize that the negative externalities outnumber the benefits of the vast quantity of food that industrial agriculture produces. Without healthy soils, water and atmosphere agriculture of any kind is severely limited. Recent reports extol the virtues of agroecological approaches to agriculture. The United Nations Conference on Trade and Development published the 2013 Trade and Environment Review entitled “Wake Up Before It Is Too Late: Make Agriculture Truly Sustainable Now for Food Security in a Changing Climate.” A key message of the document states, “The world needs a paradigm shift in agricultural development: from a “green revolution” to an “ecological intensification” approach.” It calls for systemic considerations of agricultural practices rather than simply making adjustments to current forms of agriculture that are failing us. Agroecology is mentioned specifically as “a solution to the crisis of food systems and climate change.”

The report also identifies the role inequalities in access to money and knowledge create in the rural developing world. Places where 50 to 80 percent of the population is directly involved in agriculture experience the highest levels of poverty and hunger. Such statistics call for economic and political reform in order to address such marginalization. Concern for such inequalities grows as potential food is used as agro-fuels and peasant farmers are forced to sell their produce at reduced costs due to trade liberalization and cheap imported foods. (Feyder, 2013. Commentary I: UNCTAD)

The 2009 International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD) also directly sites agroecology as a tool for addressing problems within agriculture. It is specific to point out that many of the sustainable agricultural practices that exist today are nothing new. Most of this knowledge, held by indigenous communities of developing nations, is in need of better implementation and understanding. Agroecology calls for specially tailored solutions to specific problems rather than taking the blanket approach of reductionist science.

“Because the ecology of diverse agricultural environments (agroecosystems) as well as cultural history and socio-economic circumstances vary enormously around the world, agroecology is a highly diversified concept. While this interdisciplinary diversity is key to agroecology’s enormous successes, it is also one of the reasons why the approach is still perceived as an alternative niche discipline by many policy and grant makers, mainstream scientific institutions and large parts of the private sector (McIntyre, 2009)”

The current body of knowledge surrounding criticism of the current economic paradigm as well as strategies and platforms for discussion in creating new models is vast and continues to grow. Agroecologists must take advantage of this knowledge while sharing their discoveries about holistic inquiry and sustainable farming systems. Currently, when discussing economic inequalities within food systems, Agroecologists in the United States point to providing financial assistance to sustainable farmers and education to consumers about making better food purchases (Gliessman, 2007). While these are important steps in bringing more local and sustainably produced food to more people, critics such as those mentioned in the introduction to this paper show that it is not enough. With the world looking to agroecologist for solutions now, we must be better prepared to face these critics and propose new potential solutions.

### **SNAP and the Farm Bill**

The Supplemental Nutrition Assistance Program (SNAP) in the United States helps tens of millions of under-privileged Americans access healthier food each year. Over 2,600 farmers' markets now accept SNAP benefits nationwide (USDA.gov). Some states allow SNAP benefits to be used for CSAs. Participants of the SNAP program eager to buy local and sustainably produced foods can access such foods at market. Farmers selling at the Boone Farmers' Market in North Carolina lament that few SNAP benefits participants shop at the market because the prices of fresh produce are higher than canned or packaged food and use the allotted benefits too quickly (Jason Roehrig, 2014).

On February 7<sup>th</sup> of this year the Agriculture Act of 2014 went into law. This act, formerly called the Farm Bill, dictates how government funding will be allocated for agricultural use in the United States in the following five years. This year, annual funding for the National Organic Program rose from \$11 million to \$15 million. The act focuses on improving the energy efficiency of agriculture. The act also implements an increase in funding for organic research. This increase in funding will allow organic farmers to better compete with their conventional counterparts (Smith, 2014). With such progress already underway in the United States, further investigation of economic inequalities in our food systems and the development of new strategies to counteract such inequalities will help to better prepare such programs to work more efficiently and effectively in the future.

## Challenging Mainstream Models

As agroecology continues to expand its knowledge base new fields of study will be explored. The following are examples of academic disciplines, social movements, and philosophies that agroecology and proponents of sustainable agricultural movements can investigate to learn more about how economics and resource distribution play a role in food inequalities. By exploring fields and movements that are either critical of current economic inequalities or propose strategies for economic reform that creates more equal distribution, agroecology can develop food systems that provide equal access to quality and local food products. Agroecologists can further back movements that show strong action-oriented results by providing the theory they sometimes lack.

### Political Ecology

The field of political ecology is similar to agroecology in that it takes a systems approach. Like agroecology, it developed in response to a number of fields realizing that to stay within the boundaries of their discipline would result in reductionist thinking and an incomplete understanding of their field. Paul Robbins (2004) refers to the subject as “a field of critical research predicated on the assumption that any tug on the strands of the global web of human-environment linkages reverberates throughout the system as a whole.” Like agroecology, political ecology is defined many ways. Most concisely it investigates the relationships between policy, society and economy on the natural environment.

Political ecology criticizes proponents of eco-scarcity and Malthusianism by pointing out that a majority of the world’s resources are used by cultures with relatively low populations (for example, The United States) rather than by those with dense populations. It is our relationship to and the use of our resources that cause them to become scarce. While more humans living in a given area will put more stress on resources as their numbers increase, the Malthusian view does not represent the complexity of human-environment relationships. This view becomes problematic if we believe environmental concerns should be addressed by controlling population rather than by creating avenues for fair distribution and smart use of natural resources (Robbins, 2004). Our constant need for growth under current neoliberal economic policy creates such disparities and excessive resource consumption.

Political ecology also questions the belief that technological advances developed in the global north and shared with the global south will curb current environmental degradation. Robbins uses the example of the large-scale environmental problems that arose after the green revolution used this approach in the 1970s. Such tactics also discredit indigenous knowledge about environmental stewardship. While Robbins does not use the language of systems thinking, he claims that the

“Many understandings of political ecology together appear to describe: empirical, research-based explorations to explain linkages in the condition and change of social/environmental systems, with explicit consideration of relations of power. Political ecology, moreover, explores these social and environmental changes with a normative understanding that there are very likely better, less coercive, less exploitative and more sustainable ways of doing things. The research is directed at finding the causes rather than the symptoms or problems, including starvation, soil erosion, landlessness, biodiversity decline, human health crises, and more general pernicious conditions where some social actors exploit other people and environments for limited gain at collective cost (2004).”

## Economic Geography

Economic geographers strive to highlight the development of alternative and diverse economics and to build relationships between activism and academia to promote their investigation. Alternative economic activities remain at the fringe of mainstream knowledge despite success in the places they are implemented. By researching these economies, economic geographers hope to make their success better known and eventually adapt them on larger scales. Such activities include fair trade, community-based resource management, Community Support Agriculture, co-housing movements and the global village movement. The International Cooperative Alliances found that worker, producer and consumer cooperatives provide over 100 million jobs world-wide; that's 20% more jobs than multinational corporations (Gibson-Graham, 2008).

As trained academics in a new and quickly evolving field, economic geographers see the need to expand their ways of thinking. Albert Einstein once said, “We cannot solve our problems with the same thinking we used when we created them.” It is unlikely that we can change small parts of our economic systems (economic geographers tend to focus on the faults of capitalism) and hope for drastically different results. We must create new systems. Economic geographers see academia as being somewhat skeptical and sometimes negative which could hinder

drastically the ability to understand concepts that are found on the fringes of society. Gibson-Graham states, “If our goal as thinkers is the proliferation of different economies, we may need to adopt a different orientation toward theory (2008).” As such strategy is used by agroecology, a relationship between the two disciplines could prove mutually beneficial.

## Degrowth Movement

The Degrowth movement challenges the idea that economic success comes from growth. It looks at current climate trends that suggest the possibility of an overall global temperature rise of an average of four degrees Celsius as soon as 2060 (Assadourian, 2012) and claims that drastic changes need to occur in order to be prepared for such repercussions. Adapting to these changes now, as they occur, will help to buffer some of the shock that is sure to occur with changing climatic patterns. This approach seeks a “soft landing” rather than “crash” due to environmental degradation (Martínez-Alier et al., 2010).

The Degrowth movement describes industrialized nations as “overdeveloped” while stressing that Degrowth does not necessarily mean returning to the dark ages. With conservative estimates stating the need for 1.5 earths to sustain current consumption levels, it is evident humans need to change their relationship to the resources available (Assadourian, 2012). The movement’s roots are found in a post WWI France dealing with the aftermath of the atrocious events that took place and looks to political ecology and ecological economics for inspiration. It calls for less production and less consumption. Like agroecology, both grass root and academic communities support the movement.

Serge Latouche, a well-known advocate of the movement, describes Degrowth not as a theory but rather as a “political slogan with theoretical implications.” He calls for cooperation rather than competition, quality over quantity. Degrowth is not an end point but rather a process in getting to one. By pointing out the failures of traditional economic systems and using a “slogan” that challenges their core, it gives the opportunity to discuss the development of new economic systems. Proponents of the movement suggest creating change on the individual and local levels while providing a platform for different actors in sustainable development, from climate change specialists to sociologists to agroecologist, to converge and share ideas (Martínez-Alier et al., 2010).

## Permaculture

Permaculture (permanent agriculture and permanent culture) is a set of design principles that rely on natural systems in order to function in a regenerative and sustainable manner. It relies on cooperation rather than competition (Hemenway, 2009). Humans are viewed as being part of nature and are co-creators of eco-systems. This means that permaculturists design their systems with the belief that humans must adhere to the same natural laws that all other living and non-living things adhere to. Humans are encouraged to manipulate the land so that it benefits both themselves and the entire natural world. Humans are not seen as a blight on the earth, they have a right to be here and to interact with the world in a manner that supports life and opportunity for all beings (Mollison, 1988).

Originally focusing on creating sustainable and abundant agricultural ecosystems, permaculture uses the same principles to create sustainable and abundant communities. Permaculture practices on the farm level and sustainable agriculture as suggested by agroecologists are the same. The understanding of natural processes and belief in the scientific method are used in both disciplines. Permaculture, like agroecology, uses closed loop nutrient systems to keep needs close to home (Mollison, 1988). It places added emphasis on keeping water on the land where it is needed through the building of keylines and swales (Jacke).

Use and distribution of resources and abundance fall into the “Ethical Basis of Permaculture”. This consists of three parts. The first, “Care of the Earth” ensures that permaculture practices provide “provisions for all life systems to continue and multiply.” The second, “Care of the People,” states that people should have access to provisions “necessary to their existence”. The final part is “Setting Limits to Population and Consumption” or “Fair Share”. This suggests that through “governing our own needs, we can set aside resources” for the earth and its people (Mollison, 1988). Taking on these ethics of permaculture calls for a paradigm shift and a certain degree of trust. When sharing abundance with others that lack it, one must trust that they will be shown the same level of assistance in their time of need should the roles be reversed.

With so many similarities, permaculture and agroecology have significant opportunities to learn from one another. Coming from academia, agroecologists are trained researchers. There

is little in the way of permaculture research though many examples of action oriented learning (also used in agroecology) and planning exists that agroecologist could study. Agroecology has the opportunity to support permaculture through research while gaining new insights and innovative ideas from the more grassroots movement.

## **The Blue Economy**

We often hear of a “green economy” when we talk about sustainable development. Muhammad Safayet Hussaid describes a green economy as “one whose growth in income and employment is driven by public and private investments that reduce carbon emissions and pollution, enhance energy and resource efficiency and prevent the loss of biodiversity and ecosystem services (2014).” The green economy is modeled off capitalism and requires change to happen within this system. While the green economy has taken strides to create a more sustainable economy, it requires companies and consumers to invest more to receive the same or even less (Pauli, 2010).

Like permaculture, the Blue Economy acknowledges that natural systems can work in our favor and in order to achieve the greatest possible success we must mimic them and live within their workings. The Blue Economy is a brand that evaluates and promotes technologies that seek to create sustainable economic and social systems. Its proponents believe that the earth has mechanisms for dealing with imbalance that we can mimic in order to overcome the devastation to our environment and failing economic system. The Blue Economy takes on a systems approach and believes in stacking functions. There are 21 principles in the Blue Economy, all of which reflect on the resilience of nature (See Appendix).

## **City Slicker Farms**

“The mission of City Slicker Farms is to empower West Oakland community members to meet the immediate and basic need for healthy organic food for themselves and their families by creating high-yield urban farms and backyard gardens.”

- City Slicker Farms Mission Statement

In 2001, a group of community members decided to take charge and address the lack of access to healthy fresh foods in West Oakland, California. They decided to transform local

vacant lots into gardens. Not only were they able to grow food near to the people who lacked it, they were able to beautify the neighborhood and make use of neglected space. Locals were thrilled with the use of space and excited to share their knowledge of agriculture, usually traditions passed down by their parents or grandparents.

In the early days the organization was volunteer run, the farmers giving away any extra produce to the community for free. The community members actually asked to pay for the food, thankful for the amount of labor that went into growing it ([www.cityslickerfarms.org](http://www.cityslickerfarms.org), 2014). As income levels varied in the community, the organization developed its own three-tiered payment system, allowing people to pay what they can (McClintock, 2013). No one is turned away for lack of funds.

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<b>Level 1</b>	<b>“Free Spirit:</b> Your unemployment check hasn’t come, or for whatever reason cash is not flowing in. Have some veggies for free, no explanation needed.”
<b>Level 2</b>	<b>“Just Getting By:</b> Money is tight and if it weren’t for City Slicker Farms you’d be searching for some deals at Safeway.”
<b>Level 3</b>	<b>“Sugar Mama/Daddy:</b> You may not be rolling in riches, but you can afford to shop at Whole Foods or the Berkeley Farmers Market. Pay a little more to help someone out. Thanks!”

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(McClintock, 2013)

Today, City Slicker Farms consists of over 180 backyard gardens, five community market farms and a weekly farm stand, providing food for underserved community members in Oakland. The organization converts food waste into rich compost to use in the garden. A variety of garden based education programs are available to people of all ages to introduce them to gardening or to build skills. The organization strives to meet the immediate needs of the community now through providing food while also ensuring abundance for future generations by converting urban wastelands into bountiful gardens ([www.cityslickerfarms.org/](http://www.cityslickerfarms.org/) 2014)



## The Stop Community Food Centre

“The Stop strives to increase access to healthy food in a manner that maintains dignity, builds health and community and challenges inequality.”

- The Stop Community Food Centre Mission Statement

The Stop Community Food Centre in Toronto, Canada is a new approach to an old system. In the stereotypical model of a food pantry, participants are often lined up and led through a sterile environment where they collect a bag of food, usually processed and packaged, and leave. There is a certain stigma that the people collecting food are secondary citizens, unable to make ends meet like a “good” citizen should. The Stop Community Food Centre shatters these beliefs by redesigning the normal model of a food pantry. They not only get higher quality food to more people in need but also strive to learn why people are unable to have their food needs met ([www.thestop.org/](http://www.thestop.org/) 2014).

There are many ways in which community members can participate in the Stop Community Food Centre. Participants take leadership roles and become decision makers at the centre. Garden based education teaches participants new skills while providing healthy and local food for the food pantry. Cooking classes teach participants how to cook their favorite vegetables with a new twist or introduce them to vegetables they’ve never heard of. People from all walks of life grow, cook and eat together to discuss the problems their city faces as well as learn from one another. The Community Action Program teaches members about the causes of poverty and inequality and encourages them to take charge to fight them.

The Stop believes that food banks are a “band-aid” solution to addressing hunger. They invite people to receive healthy food in an emergency and supply them not only with food but opportunities for education and further support. The Stop provides a platform for those living in poverty to create solutions to fighting poverty with people that may have never experienced it. Decisions are made collectively, not from the top down ([www.thestop.org/](http://www.thestop.org/) 2014).

## Agroecology in Latin America

Agroecology in Latin America is dominated by peasant farmer movements such as Via Campesina and takes different approaches than agroecology in the global north. Mainly, they hold more definitive beliefs about how food sovereignty must be achieved. Such movements believe in a more radical approach in creating ecological agricultural practices, one that acknowledges the need to make comparable changes in social, economic, cultural and political realms in order to become successful. Such a call for action asks for a complete cultural paradigm shift rather than a shift in solely agricultural ecosystems.

“Social rural movements embrace the concept of food sovereignty as an alternative to the neo-liberal approach that puts its faith in an inequitable international trade to solve the world’s food problem. Instead, it focuses on local autonomy, local markets, local production-consumption cycles, energy and technological sovereignty and farmer-to-farmer networks.”

– Altieri and Nicholls, 2008

## Overview

These movements and disciplines have common themes. They require systems thinking and analysis in decision-making. Some base their systems on natural systems either through mimicry or working with them to ensure resiliency and efficiency. Most agree that part of the reason for today’s problems is that humans (in certain cultures) are not living within boundaries set by nature that all other creatures adhere to.

Agroecology and parts of the sustainable food movements underway also hold these beliefs. By implementing them on the farm level they have been hugely successful in creating agricultural ecosystems that are resilient and abundant with fewer negative externalities than industrial agriculture. If working within these boundaries creates healthy agroecological systems, it is likely that our economic systems must also adhere to them in order to thrive.

Political ecology and economic geography often look to Marx to explain this disconnect from nature, referred to at times as metabolic rift (McClintock, 2009). Prior to the industrial revolution most people in North America were directly involved in the production of the food they consumed. If they did not produce their own food, they had a direct relationship with the

person who did (for example a blacksmith trading their services for food) (Lyson, 2004). Today, most people in the global north do not grow their own food and usually work to earn money to purchase their food. Because of this we lose our relationship to natural systems and the understanding of how they work. We buy bananas in Canada in January and we don't see this as problematic. We see it as progress, growth.

We can see that the solutions put forth by the examples described above do not involve getting more money to those that cannot afford the healthiest and most sustainably produced foods on the market. They all acknowledge that our economic system is broken and not in need of repair but in need of reinvention. They point out that if we continue on our current trajectory, we will waste our valuable and nonrenewable resources. While none of these examples give a definitive picture of how a new economy should look, they stress the need to create systems based on cooperation rather than competition. They call for us to reexamine our need for growth and to use our resources more carefully. They ask us to look more clearly at our own consumption and actions in the global north instead of looking to nations with booming populations. Some question the belief that the use and development of new technology will help us through these challenges while others suggest that more wise use of new technologies is essential. Agroecology, being of a holistic nature, uses a similar approach when analyzing systems and can easily incorporate some of this data and these methods to see how we can alter or create new economic systems that meet people's food needs as Via Campesina's definition of food sovereignty suggests.

## **Evolution of Plans and Reflections**

Upon my introduction to the Urban Farm Collective I was immediately interested in the barter system. Using your time, energy or a resource to acquire healthy and locally produced food seemed brilliant and had agroecological values written all over it. Initially I wanted to explore if and how the barter system created a sense of empowerment among collective members. Two main problems arose with this idea. Though the UFC market is called a barter market, it actually works as more of a gift economy. Ari Rosner, the UFC treasurer explained the difference to me during our interview. A traditional barter market includes people exchanging a variety of goods and services for other goods and services. In the case of the UFC, most people

are exchanging either their time or the physical resource of land or water for one good, food. The UFC is more like a gift economy because the value of the food changes. Secondly, empowerment is a difficult term to define and an impossible concept to quantify.

Based on what I learned in class in Norway I found the UFC to be a great example of agroecology in action. I was surprised to find minimal literature on the subject within the field. Agroecologists in North America agree that current economic practices are not allowing all people to have their food needs met. The idea that all systems need to be analyzed in order to fully create change in our food systems is discussed in agroecology literature frequently. However, agroecology in the western mindset rarely identifies how to challenge the current economic paradigm, let alone an alternative that could prove more successful. This recognition of a gap in agroecological literature showed me that I could not conduct a case study on the Urban Farm Collective and show how the methods the collective employs illustrate agroecological principles. The principles surrounding the economics of sustainable agricultural ecosystems have yet to be investigated within the field, at least in North America and Norway. Being new to the field and having no background in economics I did not feel educated enough to claim to know the answers to creating a more sustainable economic system. Upon my investigation it appears that no one seems to make such a claim. However, by exposing this gap in research and literature and investigating other fields that tackle such quandaries, I feel we as agroecologist can begin this work. In fact, it appears many opportunities for academic inquiry lie within the economics of our food systems.

## Reflections

At the end of the introduction to agroecology course in Norway we, as autonomous learners, were instructed to reflect upon our experiences in the course through the writing of a learner document. It seems appropriate here, after completing the equivalent work of the course of 30 credits hours in a single document, that such a reflection would also bring closure to this endeavor.

The most difficult part in completing this task was limiting my research. After learning how to look at systems holistically it becomes difficult to answer one question without diving into 100 more. Stumbling into my work at the UFC seemed like a small enough task at the start

but upon further investigation I learned there were many components of the UFC I could investigate. The barter market, as several UFC member noted is a more compelling piece of the UFC seemed an obvious choice. Even an investigation of the barter system became too large as I picked it apart.

I thought back to my time in Norway and tried to remember the topics I wanted to investigate more deeply but that time prohibited. I often wanted to discuss our disconnect from the natural world which partially occurs, I believe, because of our disconnect to the food we eat. Following the course in agroecology with a course in Political Ecology it became clear that I was not the only one to have these thoughts but great minds from the turn of the 20<sup>th</sup> century and before wrote about this metabolic rift in detail. We are not only disconnected from the earth by allowing others to grow our food but we further distance ourselves by working to obtain a thing so that we may purchase our food: that “thing” being money. It became clear to me that I could try to show that parts of our humanity and of nature hold the same, if not more value than that of money. I’d use the UFC members and the barter market (a system that didn’t use money) as my guinea pigs.

This struggle to narrow down my thesis ideas and to find corresponding data to back them up reminded me of Kolb’s Learning Cycle we explored in the introduction to agroecology. David Kolb created his learning cycle to display that way in which we are able to acquire new knowledge and concepts before applying them in similar or new situations. This is a four step process. We start with a concrete experience. Next, we investigate this experience, deciding what worked well and what could be improved upon. After this we determine the ways in which we will improve upon the experience. Finally, we actively experiment with the original experience using our new

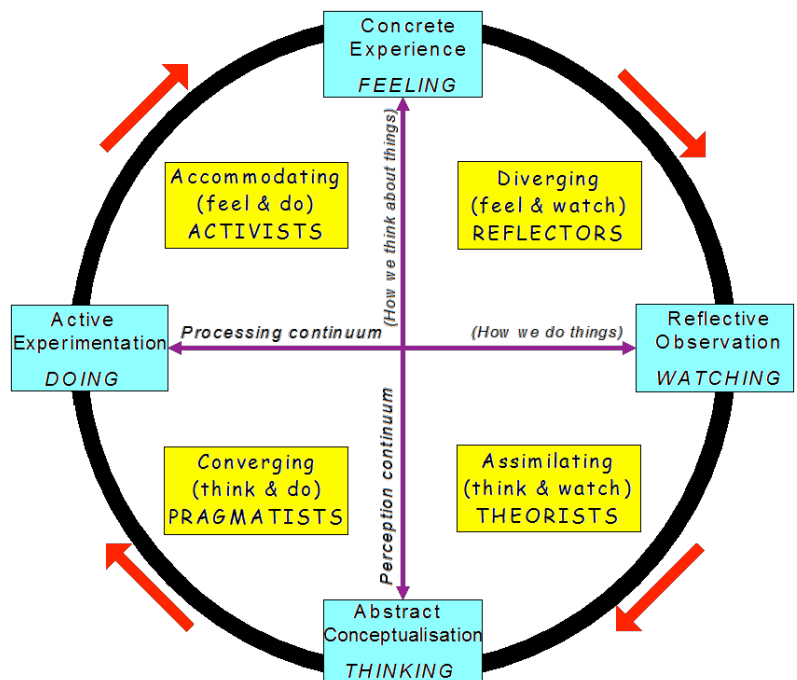


Figure 9 : Kolb's Learning Cycle

ideas about it (SimplyPsychology, 2010).

During class I was defined as an extreme accommodator, which may explain my difficulty in settling on a topic and my inability to sit behind a computer for prolonged periods of time. However, upon finalizing my ideas for my thesis I realized that I'd been through the cycle several times and would again as I continued my investigation. Upon this recognition I allowed myself more time to reflect and discuss my ideas, questions and confusion with those around me. This gave me the opportunity not only to have many interesting conversations but provided me with new data. In fact, I didn't think about adding explanation of the SNAP benefits that millions of Americans receive yearly until days before completing this paper despite the programs ability to partially address the food needs of the participants. I look forward to completing my degree, to taking my toolbox along with me with my new tools from the past few years and to implementing them in the best ways I know how, as an accommodator. I'll remember to visit the rest of Kolb's Learning Cycle when I am stuck, or at least keep some people around (like my case study group in Trondheim) to remind me to slow down and process once in awhile.

I am curious to see how the UFC will grow in the next few years and to see if more collectives outside of the city start up. I am hopeful that with the new administrative team that several of the main challenges will be addressed this year. It is truly inspiring to be around a community of people that strive to create change with energy, enthusiasm and the belief that new systems are possible. I am excited to see more collaboration between institutions and activism and proud to be part of an academic community that supports such interactions.

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## **Appendix**

### **Challenges in the Urban Farm Collective with Potential Solutions**

My participation in the planning team gave me the opportunity to assess some of the major challenges the collective faces. While these challenges do not relate to the perception of value or need for agroecology to explore alternative economies by acknowledging them and coming up with solutions as a community will help the collective address the food needs of Portland and beyond. Through my involvement with the Urban Farm Collective I determined that most problems within the collective were smaller parts to the following three main challenges.

1. Challenges in building a more diverse member base
2. Low volunteer retention
3. Lack of necessary communication

### **Diversity**

The Urban Farm Collective is successful in the demographic it serves. This demographic is not representative of the neighborhoods that it seeks to serve and continues to struggle to attract people outside of its current demographic. During my time observing the UFC for my thesis work (January 2013 to September 2013) I saw few attempts made to specifically address diversifying the collective. This does not mean that attempts were not made or that they were not made prior to my involvement. However, the 2014 season is bringing great changes in the UFC's attempts to diversify.

### **Volunteer Retention**

Retention of volunteers is low. Many apprentices drop out before the season is over and garden managers step down at the end of each season. Apprentices, excited by all that summer in Portland has to offer, forget the commitment they made to the UFC at the start of the season in

order to pursue other endeavors. Garden managers often find paid work that is too demanding to keep up with their UFC volunteer commitment or leave Portland in search of paid work in their given field. The 2014 planning team is investigating how to keep apprentices through the season. A number of smaller roles were added

## Communication

Each year brings an influx of new members eager to get their hands dirty on the planning team or in the gardens. Between the loss of old members and this influx of new members a large amount of information must be exchanged.

There are many events that the UFC offers from work parties to workshops. Workshops are not well attended, mostly because people do not hear about them.

Again, these issues are already being addressed this year by the addition of more administrative roles.

## Suggestions

As I mentioned before, working intricately with the Urban Farm Collective gave me additional insights unavailable to outsiders or members who take on limited responsibility. The data attained through the survey and interviews allowed me to hear common concerns collective members had up until the end of the 2013 season. The ideas below address these specific concerns and are a product of my own insights as well as the insights of those whose involvement exceeds one year. These suggestions are made in hope of addressing the challenges explained above. The Planning Team of the UFC already has my list of suggestions and is taking them into account as they begin the 2014 season. These suggestions are directly related to and address the three main challenges the UFC faces.

The Portland State University Capstone in Urban Agriculture class also came up with their own set of suggestions. These suggestions are located in the appendix.

## Website

The website is the first place that people interested in volunteering or curious community members will go to explore what the Urban Farm Collective does. Currently the front page of the

website conveys minimal information. It shows the mission statement of the collective followed by a brief description of what the UFC does. While this is enough information for someone casually browsing the site, those that are seriously interested must navigate for some time around the website to get a more in-depth understanding of the collective. This could be addressed by creating an “About Us” page that introduces the viewer to some deeper concepts. For example this page could briefly explain each member role and explain items such as the barter market and the relationship to St. Andrews and OSALT in a bit more detail. There is no mention that you can volunteer without a set commitment and still earn slugs to participate in the barter market. Mentioning this may encourage volunteers who will want to make more of commitment later on.

Many members are frequently confused about how the barter market works. Explain the different ways slugs can be acquired and how many slugs you get per hour (1 hour: 1 slug) or as a water-sharer (50 slugs) or land-sharer (100 slugs). Also show the value of a slug against the value of each market item. Mention that you can also receive slugs through administrative work or through being on the planning committee. Determine how many slugs these administrative positions receive.

A page with Frequently Ask Questions (FAQ) could save Janette Kaden, who usually answers questions asked in interviews, by e-mail and by curious community members, a great deal of time. This would not only give Janette more time to expend her UFC energy elsewhere but would lead to more focused interview questions and potentially discussion about new opportunities. This FAQ page could also list any previous articles or papers written about the UFC, such as that of the PSU Capstone in Urban Agriculture class.

## **St. Andrew's**

St. Andrew's plays a vital role in the UFC as they provide space for the market and meetings as well as receive the extra produce from the markets for their food pantry. Little dialogue happens between the two entities and a lot of untapped potential exists. St. Andrew's sometimes finds the food they receive to be less than desirable and feels they should receive more of the yield of the Common Bond plot as the land is on their property. By creating better report with St. Andrew's, both the UFC and the church will benefit.

Erika Abad, former garden manager of Whiskerton and a parishioner of St. Andrew's, is in the process of writing a report expressing the needs of St. Andrews. Erika will be leaving

Portland in the summer of 2014 and can provide the UFC with a lot of great information about St. Andrew's and its food pantry staff. By creating a planning team position of St. Andrew's Liaison now, Erika can pass her knowledge on before her departure. The liaison can report to the UFC planning team any information pertinent to St. Andrew's satisfaction and potential opportunities to strengthen the relationship between the UFC and St Andrew's and further address food needs in Portland.

Inviting parishioners and food pantry clients to volunteer and share their garden knowledge will help strengthen UFC / St. Andrew's bonds. St. Andrew's has large Mayan and Latina populations with traditional food knowledge to share. As the UFC lacks in diversity, making the St. Andrew's community feel more welcome could change this. Common Bond Garden, being on St. Andrew's property, is a great garden in which to encourage new members from St. Andrews to volunteer. The visibility of Common Bond to the church community could bring many new members.

I discussed "The Stop" earlier in this document in part to give a great example of the potential for growth. The UFC and St. Andrews could really challenge the typical role of a food pantry in the United States and set an example of how to facilitate greater change. The UFC is already a more radical model and its connection to a food pantry already in existence sets the perfect stage to replicate some of the strategies implemented by "The Stop" in Toronto.

### **Garden Managers**

My experience as a garden manager and planning team member left me always asking questions I could tell older members answered frequently. Again, providing FAQ on the website would give existing members a place to learn more without taking up time at planning or garden manager meetings. Providing additional information on the website or as a hand out will also prove useful. This information could include a history of the UFC, easy to find contact information for key UFC members (who to talk to for computer needs, garden resources or outreach for example) and the completed "Best Practices" document the UFC started years ago.

When a new garden manager takes on a garden an old garden manager should be matched with them to better explain their role on the ground. The old GM should take the new GM to their garden to explain what practices they implement to be successful. After this, the two GMs can explore the new garden to assess it for potential strengths, weaknesses and

opportunities. If the new GM has specific questions about gardening or their role as a GM, they can then turn to this old GM for advice.

Creating a position of a floating garden manager would provide additional assistance to new garden managers. The floating garden manager could make sure the new garden managers are able to meet the needs of their apprentices, provide abundant produce for market and have their garden based needs met and questions answered. The floating garden manager should have established gardening and farming skills and be able to answer or find answers for sustainable agriculture and gardening practices.

### **Premarket Announcement**

All UFC members meet at the weekly barter market to collect their produce. This is a great place for members to meet one another and to hear important information first hand. Giving five minutes to premarket announcement will allow for people to get to know more about other UFC roles and members and provide a time for important information to be shared.

Introducing a new member role each week will help less involved members understand the intricacies of the UFC. During the first barter market, introduce new members so that old members can make them feel more comfortable and answer any questions they may have about the market. Later, introduce members by roles. Identify the duties of the role and ask these members to raise their hands. Taking time to acknowledge each member's commitment will boost member moral by showing them appreciation.

Announcing upcoming workshops or work parties will help remind people that are less inclined to check the UFC calendar for events. Premarket announcements could introduce a special veggie of the week. Maybe the vegetable is a classic and new to the market that week or perhaps it is something unusual that needs an explanation. This will give members a better understanding of what is in season at a given time and might introduce them to something new.

### **UFC Start-up Kit**

In 2013 two new garden nodes in Portland formed. While the nodes are invited and encouraged to participate in the N/NE Portland node event, they are mostly autonomous and have their own means of food distribution. The 2013 planning team often discussed the need to

find more ways to assist the new nodes in Portland and future new nodes that might arise in the city or outside of Portland.

The UFC gained more success, much faster than anticipated. Decisions about growth were made quickly and sometimes hastily. Creating a package of information giving insights about the growing pains of the UFC and how the UFC dealt with them will allow for future nodes to avoid some and be prepared for others. Designing a UFC Start-up Kit will give new nodes all the information and strategies for success that the UFC currently has.

The Start-up Kit will include

1. History of the UFC
  - a. Explaining why the UFC came into existence will show why it is important for grassroots organizations to take control of our food systems though setting an example.
2. “Best Practices” Guidelines
  - a. Giving examples of our sustainable agricultural practices will help new nodes create their own.
3. Description of member roles: Current and Needed
  - a. The UFC relies on many hands. Explaining the importance of the 1000 hands philosophy and its importance to the UFC model will prevent volunteers from being over worked.
4. List of UFC partners and techniques for finding partners
  - a. UFC partners are integral to its success. Community support is abundant and a resource that should be explored.
5. Successes and Failures
  - a. As mentioned before, this will help new nodes avoid some problems and be prepared for others. Successes will show new nodes what worked best for the original UFC model.
6. A list of similar Alternative Agriculture Movements
  - a. The UFC model is not the only model. Providing other examples of successful movements and organizations could give great insights for something even bigger.

## **Hired Staff**

Each year, new members join and take on new roles. Other members leave town, find more demanding work and can no longer volunteer or step down from their role as it became too demanding in the previous year. When this happens, a lot of momentum and energy is lost. When these UFC leaders are lost, it takes time to educate new people to fill their shoes. Many UFC members are well educated and have trouble finding work in their field in the over-educated city of Portland. By paying two people for part time work, knowledgeable members can support themselves in the work they love and create some serious growth for the UFC. Having two people as hired staff gives them the opportunity to meet together and get feedback when needed.

The positions should take on major administrative work that includes the following: grant writing, coordination of the Give Guide and fundraising events, assistance in planning team by completing administrative tasks, organization of planning meeting agenda, note taking, setting times for each meeting item, reading and organization of e-mails, management Facebook, blog and other online accounts, organization and announcement of workshops and important meetings, and assisting new nodes.

Hiring staff could potentially change the relationship to OSALT under which the UFC gains its non-profit status. Renegotiating the relationship with OSALT would be vital as the organization is important to the UFC. The UFC must also apply for separate non-profit status making the endeavor of hiring staff tricky.

## **More Food to More Members**

Many UFC members are unable to make the Monday evening markets. Finding more ways to get more food to all members should be a priority and might encourage more curious community members unable to attend the market to join the UFC.

Holding a second market would make market produce available to more people. Garden Managers could chose which market better fits their schedule. As the number of UFC gardens grows, this option becomes more viable. More fresh food would also make it to the St. Andrew's food pantry and potentially address the issue of them receiving produce past its prime.

Creating a volunteer role to help coordinate food distribution would also help address this problem. This volunteer can take orders and either leave food at a central location for future pick



up or drop food off like a delivery service. If taking orders is too complicated, creating small bags of general produce could simplify the job. Some garden managers already take on this role for their volunteers and apprentices. Providing each garden with a cooler to store produce for members unable to attend market during its open hours would allow members to pick up food post market.

### **External Market Manager**

Some community members are interested in participating in the barter market but already grow a garden of their own. Others have abundant fruit to share and would like to get other produce in return. These members, formerly known as “growers” in the UFC, are not well coordinated at this time. Access to fresh fruit and value added products would become much easier if a volunteer coordinated these members. The “grower manager” could seek out new community members that have abundance or a value added products and invite them to join the UFC.

### **Seed Savers**

A good portion of UFC funds goes to the cost of seeds. Creating a team of two or three people to collect seeds from various gardens and other neighborhood resources (seed swaps, neighbors, donations from garden stores) will keep this cost lower and allow the UFC to boast even more about their resourcefulness and ability to scavenge. The team could come up with a safe, dry and accessible space for keeping UFC seeds, as one does not exist at present.

### **Apprentice Retention**

Apprentices are the most likely to leave the UFC during the “summer drop-out”. Warm weather, sun and access to fun the city of Portland provides sometimes pulls these members away from their garden chores. Placing apprentices close to their homes might make it seem less of a hassle if their garden is nearby. Make sure the apprentice knows they have the opportunity to switch gardens if distance or another variable makes their experience less than desirable.

Currently, garden managers are to encourage their apprentices to explore an area of interest. Creating an individual plan for such exploration would make the process more

structured. Each GM should ask the apprentices to research their desired topic and come up with a plan to implement their idea in the garden. The apprentice explains the idea to the rest of that garden's volunteers and together they figure out where in the garden this project best fits. The GM then obtains the resources needed for the project. Having a sense of ownership might keep an apprentice around if they can physically see their contribution to the garden. When the apprentices receive their certificate at the end of the year, give them the opportunity to discuss their successes and failures with their project and their overall experience as an apprentice.

### **Building a Diverse Community**

Many organizations exist in Portland that strive to address gentrification in the city. It is possible that these organizations are curious to learn more about sustainable agriculture practices and how community can build around food. The UFC should take the initiative to reach out to these communities so that we can share our knowledge and reach more people.

Some organizations with similar missions as the UFC include:

Center for Diversity and the Environment - <http://cdeinspires.org/>  
Growing Gardens - <http://growing-gardens.org/>  
Alberta Coop Community Engagement Committee -  
<http://www.albertagrocery.coop/about/committees/community-engagement-committee/>

## Urban Farm Collective Survey

Dear Urban Farm Collective member,

We invite you to participate in this research project on the motivations and experiences of UFC members. We hope this study will provide the UFC Planning Committee with important information on the UFC's functioning, while providing us with insights into how urban agriculture collectives such as the UFC function. Your participation in this survey is voluntary and you may quit at any time. This survey is anonymous and your responses will not be attributed to you in any way. There are no risks to participating in the survey, nor will you receive any direct benefit from taking part but we do hope that this research will benefit both the UFC and other urban agriculture organizations. If you have any questions about the research project, please e-mail [n.mcclintock@pdx.edu](mailto:n.mcclintock@pdx.edu). If you have any questions or concerns about your treatment or rights as a participant in this research project, please contact Portland State University's Human Subjects Research Review Committee (phone: 503-725-4288 or 877-480-4400; e-mail: [hsrrc@pdx.edu](mailto:hsrrc@pdx.edu)).

By continuing with this survey, you are indicating that you are at least 18 years old and that you have read and understand the above information and agree to take part.

Thank you for your participation!

The PSU Urban Agriculture Capstone Survey Team  
Lizzy Simpson (UFC Singer Garden Manager)  
Nathan McClintock, PhD (Assistant Professor, Urban Studies & Planning, Portland State University)

### How long have you been active in the Urban Farm Collective?

- less than 1 year
- 1-2 years
- 2-3 years
- 3-4 years

**How did you hear about the UFC? Please select all that apply.**

- word of mouth
- website
- garden sign
- radio
- flyer
- Other:

**How do you participate in the UFC? Please select all that apply**

- volunteer
- apprentice
- garden manager
- planning committee
- land sharer
- water sharer
- Other:

**What are the core reasons for your participation with the UFC? Select all that apply:**

- To learn more about gardening
- To spend time outside
- Environmental concerns
- Community-building
- To increase access to fresh food in the community
- To supplement household food needs
- To gain new skills (homesteading, building...)
- Self-sufficiency
- Public Health / Nutrition
- Therapeutic / Rehabilitation
- Social justice
- Food justice
- Food sovereignty
- To participate in an alternative economy
- Ecological restoration / To increase biodiversity
- Spiritual/ Connection to place or the earth
- Other:

**What is your level of gardening experience?**

- Novice
- Some experience, but room for growth
- I could write a book about it

**How many hours in total do you spend at a UFC garden each week?**

- less than an hour
- 1-2 hours
- 2-3 hours
- 3-4 hours
- 5-7 hours
- more than 10

**What is your age?**

- 18 - 24 years old
- 25 - 34 years old
- 35 - 44 years old
- 45 - 54 years old
- 55 - 64 years old
- 65 years and older

**Please specify your race/ethnicity**

- White or Caucasian
- Hispanic or Latino
- Native American or American Indian
- Black or African American
- Asian/ Pacific Islander
- Other

**What is your state or country of origin?**

Please type your answer in this box.

**What is the highest degree or level of school you have completed? If currently enrolled, highest degree received.**

- No schooling completed
- Nursery school to 8th grade
- Some high school, no diploma
- High school diploma or equivalent
- Some college credit, no degree
- Trade/technical/vocational training
- Associate's degree
- Bachelor's degree
- Master's or professional degree
- Doctorate degree

**Are you currently employed?**

(Check all that apply)

- Employed for wages or salary
- Self-employed
- Unemployed and looking for work
- Unemployed and not currently looking for work
- Homemaker
- Student
- Military
- Retired
- Unable to work
- Primary caretaker of children or other live-in relatives
- Other:

**How many hours per week do you work for wages/salary?**

- 40 or more
- 30 to 39
- 20 to 29
- 10 to 19
- 1 to 9
- I do not work for wages/salary

**Are you on any form of government assistance?**

Please check one box. If you would like to share what kind of government support you are receiving (for example food stamps) please select "other" and fill in the type of assistance received.

- Yes
- No
- Decline to answer
- Other:

**What is your household income?**

- Under 12k
- 12-25K
- 26-35K
- 36-45K
- 46-55K
- 56-65K
- Above 65K
- Decline to answer

**How many dependents do you claim on your income?**

Please fill in number in space provided.

**What percentage of your income goes to food?**

- Under 5%
- 5-10%
- 10-20%
- 20-40%
- Over 40%

**Do you rent or own your home?**

- Rent
- Own
- Other:

**What is the closest street intersection to where you live? (eg, NE 8th Ave and NE Ainsworth)**

We would like to know this to determine how far UFC members travel on average from home to the various gardens.

**What garden(s) do you typically volunteer at? Please select all that apply.**

- Alberta
- Birdhouse
- Chickenwing
- Common Bond
- Fargo Food Forest
- Fertility (Our) Garden
- Going Rogue
- Grand Dekum
- Greely Food Forest
- Greenhouse
- Kazuko
- Mama Jean's Corner Garden
- Turner
- Whiskerton

**What is the most frequent method of travel used to get your most frequented UFC garden?**

- Walk
- Bike
- Drive
- Bus/public transportation

**How far do you typically have to travel to your grocery store or supermarket?**

- less than 1 mile
- 1-2 miles
- 2-3 miles
- 3-4 miles
- more than 5 miles



**Do you eat more fresh produce because of your involvement with the UFC than you otherwise would?**

- Yes
- No
- Sometimes
- Other:

**How frequently do you attend the UFC Farmer's Market?**

- 1-2 times per year
- 3-5 times per year
- 6 or more times
- N/A - First year working with UFC

**During the barter market season, what percentage of your fresh vegetables are provided through UFC?**

- less than 5%
- 10%
- 25%
- 50%
- 75%
- 100%
- N/A - First year working with UFC

**Please rate the following statements from “Strongly Agree” to “Strongly Disagree” based on how true each is for you.**

**I feel the amount of food I get for my participation is worthwhile.**

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

**The barter market system is easy to understand.**

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

**I feel empowered to better my community, the environment, and myself through my involvement with the UFC.**

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

**The UFC provides a place for me to voice my concerns and a community of people to help come up with solutions.**

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

**The UFC has increased my access to fresh food.**

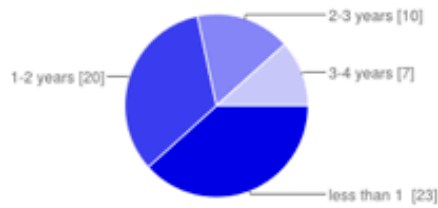
- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

**What is your vision for the UFC?**

# Survey Results

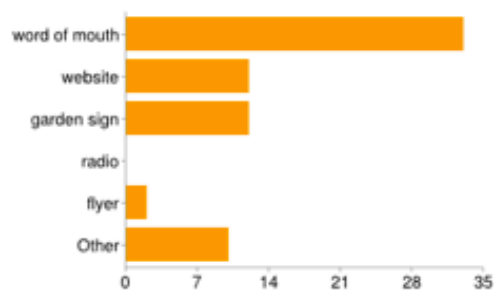
## Summary

How long have you been active in the Urban Farm Collective?



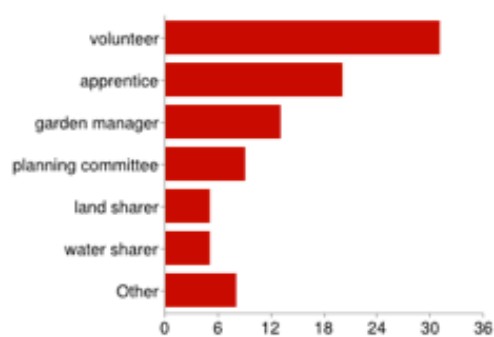
less than 1 year	23	38%
1-2 years	20	33%
2-3 years	10	17%
3-4 years	7	12%

How did you hear about the UFC? Please select all that apply.



word of mouth	33	48%
website	12	17%
garden sign	12	17%
radio	0	0%
flyer	2	3%
Other	10	14%

How do you participate in the UFC? Please select all that apply



volunteer	31	34%
apprentice	20	22%
garden manager	13	14%
planning committee	9	10%
land sharer	5	5%
water sharer	5	5%
Other	8	9%

**What are the core reasons for your participation with the UFC? Select all that apply:**

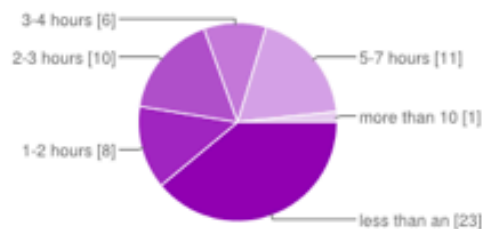


**What is your level of gardening experience?**



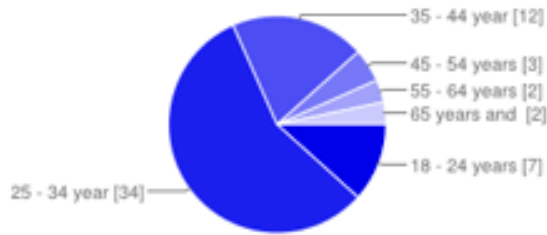
Novice	12	20%
Some experience, but room for growth	40	68%
I could write a book about it	7	12%

**How many hours in total do you spend at a UFC garden each week?**



less than an hour	23	39%
1-2 hours	8	14%
2-3 hours	10	17%
3-4 hours	6	10%
5-7 hours	11	19%
more than 10	1	2%

**What is your age?**



18 - 24 years old	7	12%
25 - 34 years old	34	57%
35 - 44 years old	12	20%
45 - 54 years old	3	5%
55 - 64 years old	2	3%
65 years and older	2	3%

**Please specify your race/ethnicity**

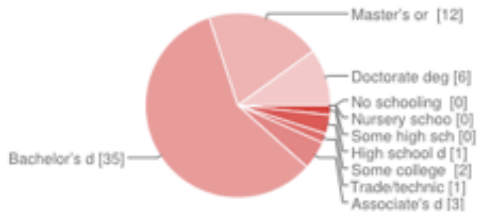


White or Caucasian	54	90%
Hispanic or Latino	2	3%
Native American or American Indian	0	0%
Black or African American	1	2%
Asian/ Pacific Islander	1	2%
Other	2	3%

**What is your state or country of origin?**

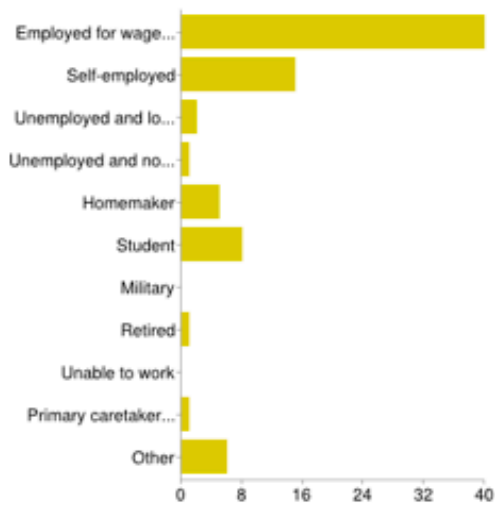
California US California, USA NH Kansas United States wisconsin Oregon, USA usa Oregon ohio Wisconsin New hampshire Washington Illinois pennsylvania USA Georgia South Dakota minnesota, michigan Florida Massachusetts Maryland Ohio Idaho Virginia New York MI, USA Pennsylvania CA Illinois, United States japan Indiana

**What is the highest degree or level of school you have completed? If currently enrolled, highest degree received.**



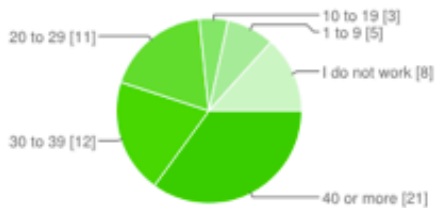
No schooling completed	0	0%
Nursery school to 8th grade	0	0%
Some high school, no diploma	0	0%
High school diploma or equivalent	1	2%
Some college credit, no degree	2	3%
Trade/technical/vocational training	1	2%
Associate's degree	3	5%
Bachelor's degree	35	58%
Master's or professional degree	12	20%
Doctorate degree	6	10%

**Are you currently employed?**



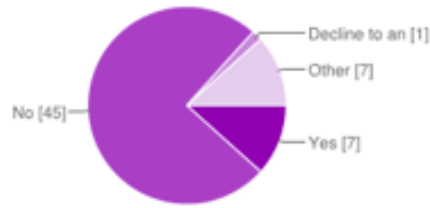
Employed for wages or salary	40	51%
Self-employed	15	19%
Unemployed and looking for work	2	3%
Unemployed and not currently looking for work	1	1%
Homemaker	5	6%
Student	8	10%
Military	0	0%
Retired	1	1%
Unable to work	0	0%
Primary caretaker of children or other live-in relatives	1	1%
Other	6	8%

**How many hours per week do you work for wages/salary?**



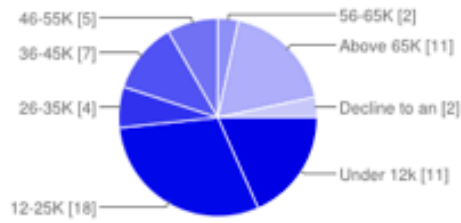
40 or more	21	35%
30 to 39	12	20%
20 to 29	11	18%
10 to 19	3	5%
1 to 9	5	8%
I do not work for wages/salary	8	13%

**Are you on any form of government assistance?**



Yes	7	12%
No	45	75%
Decline to answer	1	2%
Other	7	12%

**What is your household income?**

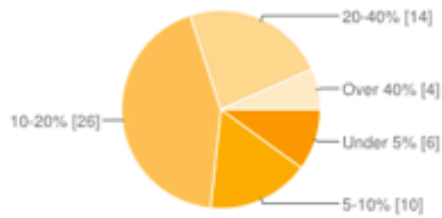


Under 12k	11	18%
12-25K	18	30%
26-35K	4	7%
36-45K	7	12%
46-55K	5	8%
56-65K	2	3%
Above 65K	11	18%
Decline to answer	2	3%

**How many dependents do you claim on your income?**

zero 3 2 1 0

**What percentage of your income goes to food?**



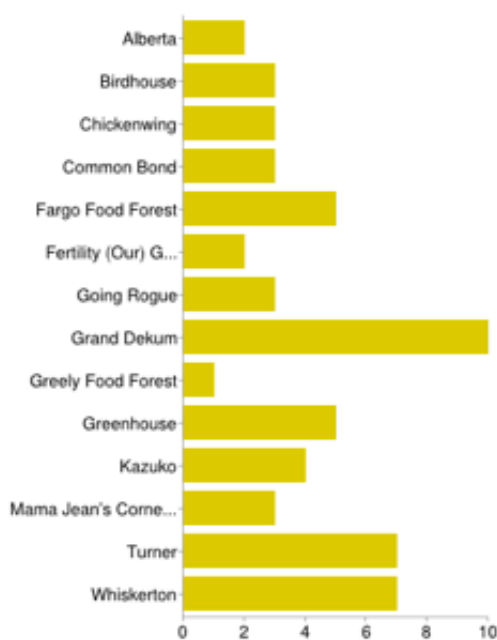
Under 5%	6	10%
5-10%	10	17%
10-20%	26	43%
20-40%	14	23%
Over 40%	4	7%

**Do you rent or own your home?**



Rent	33	56%
Own	25	42%
Other	1	2%

What garden(s) do you typically volunteer at? Please select all that apply.



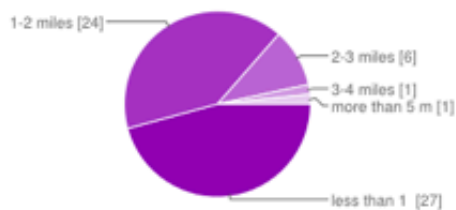
Alberta	2	3%
Birdhouse	3	5%
Chickenwing	3	5%
Common Bond	3	5%
Fargo Food Forest	5	9%
Fertility (Our) Garden	2	3%
Going Rogue	3	5%
Grand Dekum	10	17%
Greely Food Forest	1	2%
Greenhouse	5	9%
Kazuko	4	7%
Mama Jean's Corner Garden	3	5%
Turner	7	12%
Whiskerton	7	12%

What is the most frequent method of travel used to get your most frequented UFC garden?



Walk	6	11%
Bike	30	56%
Drive	15	28%
Bus/public transportation	3	6%

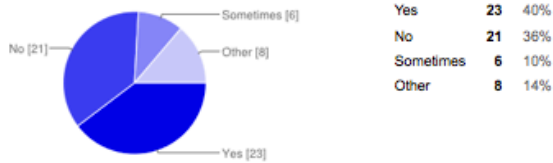
How far do you typically have to travel to your grocery store or supermarket?



less than 1 mile	27	46%
1-2 miles	24	41%
2-3 miles	6	10%
3-4 miles	1	2%
more than 5 miles	1	2%



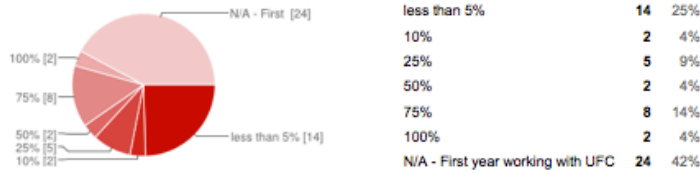
Do you eat more fresh produce because of your involvement with the UFC than you otherwise would?



How frequently do you attend the UFC Farmer's Market?



During the barter market season, what percentage of your fresh vegetables are provided through UFC?



Please rate the following statements from "Strongly Agree" to "Strongly Disagree" based on how true each is for you.

I feel the amount of food I get for my participation is worthwhile.

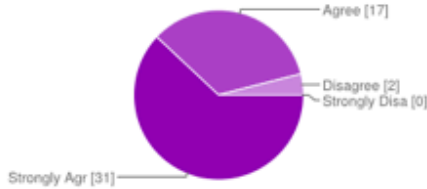


**The barter market system is easy to understand.**



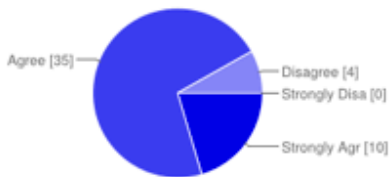
Strongly Agree	13	30%
Agree	24	56%
Disagree	5	12%
Strongly Disagree	1	2%

**I feel empowered to better my community, the environment, and myself through my involvement with the UFC.**



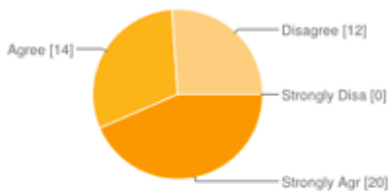
Strongly Agree	31	62%
Agree	17	34%
Disagree	2	4%
Strongly Disagree	0	0%

**The UFC provides a place for me to voice my concerns and a community of people to help come up with solutions.**



Strongly Agree	10	20%
Agree	35	71%
Disagree	4	8%
Strongly Disagree	0	0%

**The UFC has increased my access to fresh food.**



Strongly Agree	20	43%
Agree	14	30%
Disagree	12	26%
Strongly Disagree	0	0%

**What is your vision for the UFC?**

All garden managers have master gardener level skills There are UFC gardens scattered around the city and each neighborhood farmers market has a UFC table that include culturally appropriate vegetables for low price or free/sliding scale barter market is easier to use (fill in the bag? somehow eliminate the weighing process - More paying positions! Continued expansion, more gardens, more people. - I would love to turn part of the city park by my house into a community orchard, so that I could just walk over and work in the garden/orchard. It would be great to see public rights of way with fruit and nut trees and communal raised beds. I would like to see UFC continue in community efforts creatively with little to no dependence on money. I would like to see the UFC continue to grow for food, medicine, plant technology and focus on land stewardship creating a radical positive change for Portland. I hope to see the UFC set an example for other communities and obtain more space for the cause. I want us to lead the way for all and change the world's ideas to an "earth consciousness". - I would hope, in the next few

years, UFC partners with community organizations and food pantries to get food pantry recipients gardening with them. Bridging the cultural divide born from class and cultural differences because of the food connection would be great. Not just with the St Andrew's community, but also with communities in Sellwood, St Johns and Cully. If in that time, UFC establishes the infrastructure to have a garden manager and an organizer assigned to each garden, the success re: food and community building would be exponentially greater. Decentralized urban farming & barter network - Enabling individuals and families to help themselves by producing food and bringing it home. - I would love for it to be a sustainable and replicable model of food self-sufficiency. - Utilize the many resources available in portland to grow organic food and distribute to folks who appreciate it. - Not involved enough to have an answer. - Keep doing what you do and shake up the food system for the better. - To provide a model for a more balanced way of creating food and community. I'm in the new SE node, I travel to 57th and Holgate. I look forward to seeing the model flourish and adapt to new neighborhoods across the country. - I'd love it to grow and grow, but in a way that still maintains close-knit community feel. This may mean having to have separate collectives under a larger network of the UFC umbrella. I'd love to see the UFC get a better compost system going so managers have access to all the organic matter we need for our gardens. I'd also love to see some more animals incorporated into the UFC. And in addition to animals, any other products from plants: tinctures, salves, art dyes, teas, etc. - I believe this model inspires our community to create better systems to access nutritious food. With the centralization of our food supply, we are entering a dangerous age and I believe the UFC encourages us to grow and eat seasonally and locally. - I'd like to see further expansion-- either by UFC itself or sister organisations-- of neighborhood/community gardens, and reaching more people with the word on the benefits of such gardens-- such as food security, community resilience, ecology, etc. Again, either by direct participation by UFC or by sharing knowledge, experience, etc. with other like-minded organisations. - Growth in outreach to the poor and schools with high rates of poverty. PPS gardens like the Sabin water tower, have 5 year wait lists. - I hope that we can sustain this model and do more outreach to spread the word that this works! - With the economy as it is, including a lack of jobs, I see the UFC providing a means for folks to use their spare time in a productive way while gaining tangible benefits. - Sunshine, gardening skills, learning from others in the community. - I think the UFC is off to a good start but needs to access different demographics in the city. I would like to see more diversity within the collective, a deeper relationship with St. Andrews and growth! - An organization that brings people together to learn, in a collaborative and hands-on way, how to grow food. By its very nature this builds community, establishes a connection to the land for people in the city, and helps people realize new possibilities for interacting and organizing with their neighbors. - I believe strongly in the work of the UFC but feel that the program could do more outreach to diverse communities and low-income families that live in the areas where our gardens reside. It is my impression that the majority of garden managers and apprentices are young (25-40) and white. Efforts to diversify program participant involvement (i.e. more diverse neighbors becoming apprentices and participating in the barter program) would help to improve food security and the overall health of folks who may not have access to the fresh goodness we grow! Continue to expand and get more people involved - A vehicle to transform underutilized spaces into local and equitable food security. - I don't really have a vision for the UFC. I feel that my current level of participation is too meagre to merit, or even mature into, some imaginative construction for how the UFC should function in the future. - I would love to see the UFC continue to grow and engage new community leaders to make it's operations more sustainable. I

would love to see my garden encourage participation in the larger community. I would love to see it grow into more and more gardens and continue to be a positive force in the lives of others.

- Collective of people learning from each other, building community sharing skills, taking action against food insecurity / injustice (in addition to work in gardens). Building - More inclusive, more production of food - Growing food on as many small lots as possible. Expanding into other neighborhoods so more people will have access to space to garden and grow food even if they don't have the experience to manage their own garden.

How do you define food security?

Decisions about which food to eat, not whether or not you (or your children) will eat. - Healthy food is a human right. Land should not be owned and subject to be lost to the state. If people want to grow their own food or at least eat local healthy food, they should be able to. It shouldn't be a privilege. - The ability to have food on the table and not have periods of stressing whether one might run out. - Being able to grow all the food I need without having to depend on fossil fuels. In my opinion this requires a half acre or more per person and would be impossible at city population densities. - Not having to worry where your next meal is coming from. On a larger scale it is having a sustainable and regenerative food system that can continue to provide for our needs rather than mining the soil, producing tons of green house gases and losing top soil at an alarming rate. A community with food security is able to supply enough healthful food to its members, especially by producing enough of its own food to be self sustaining. - People having access to plentiful, nourishing, affordable and non-toxic food, that's not dependent on their income, or amount of time they have, mobility, or other life factors that may arise. Knowledge that that plentiful plentiful, nourishing, affordable and non-toxic food will remain. - Food security, as I understand it, is the security that there will be a steady access to nutritious food. - N/A - I would define food security as one's ability to acquire calorically and nutritionally sufficient food stuffs reliably. Too simple of an answer by itself due to its abstractness but still a starting point for looking at: how this need is met within the current macro (global) and micro food systems; where, when, and why it isn't met; and how we can act to remedy (systemically, politically, individually, and within communities) those times and places where/when the system fails to provide food security. Food security is also different than food justice and both are different than environmental justice; despite the fact that they often intersect. - It's the feeling of creating a menu for the coming months, having a stocked pantry and not thinking about where your next meal will come from. It's having the knowledge of processing and planting, preserving and pickling. How to grow, maintain, support and improve. - Being able to eat healthy, nutritious food as well as meet other basic needs, such as housing and transportation. - Abundance of fresh food, available at all times at a very affordable price. - Growing your own food. - Food security occurs when a person has access to and can procure a variety of nutritious food. - Food security is having a source of healthy food on which you can rely despite political, economic, and environmental changes. - Put as much effort as you can each day into the sustainable production of the food that you consume. - Food security is the absence of hunger. It is individuals and families being confident that they will have what they need for the week to feed themselves and their loved ones. It is more than just "enough" food. Food security includes access to a wide variety of fresh produce that allows individuals to maintain proper nutrition and prevent disease. - Access to adequate nutrition without reliance on insecure systems (imports, fossil fuels, etc). It

may require redundancy to account for the inherent risks associated with food production through farming/gardening. - The ability to have access to healthy food... economic access, physical access, as well as informational access. - Access to healthy, affordable and culturally appropriate food - Being able to grow your own food, all of it that you need for a year. - Feeling like I have access to quality organic foods, grown close to my home. If there were obstacles or obstructions to this right I hold very dear, I would feel very insecure. - Not having to question one's ability to buy healthy food. Food security exists when an individual's nutritional needs are met without being at the whim of economic and political forces. access to food that you would like to eat food availability Having stable and sustainable access to fresh food that is not dependent on large, overstretched, overworked and fragile supply chains. - Having access to locally produced food. - Food security is when all people have access to enough food to meet their nutritional requirements.... not the needs set by the FDA but the needs of their body in order to feel healthy physically, mentally and spiritually.

Please use the space below for any additional commentary, suggestions or criticisms of the UFC or UFC policies.

I have other options for food security, I'd like to see the UFC serve more community members with less fresh food options. - Not sure I'll be able to participate this year, but I will try. As my children grow older I want them to be gardeners. And I want them to understand the value of community service. So we will be there growing vegetables! I'm interested in participating or helping to establish an urban farm closer to my home in the SW region. All current UFC locations are a 30+ minute drive. - I feel disconnected from what's happening at the other UFC garden sites and hope that there will be opportunities to connect and share with each other once the barter market begins. Perhaps there are other ways for the gardens to keep in touch - or maybe the managers have info that I am unaware of? I will check in with them. Thank you for doing this! I look forward to hearing about your findings. - thanks - On the hours: I generally put in 10-15 hours per month, but it's mostly non-gardening work. UFC garden managers should be much better trained and can teach people how to set up gardens and grow vegetables. Some are so novice that I get a little worried at times. - The barter market often had a long line which moved slowly. It's a fun place to socialize, but it would be nice if there were a faster method of checkout. How about grouping multiple things with similar cost so they could all be included in a single bag and weighed at once? - I am just beginning my time with the UFC, and so far it's been a great experience! I do feel a little disconnected from the larger UFC community. I will have to put in a little more effort to stay connected - I have only volunteered a few times because I was extremely disappointed with the tiny amount of food given for the amount of work I put in. I saw so much food on the brink of going bad that was not given to volunteers so it could go to a food bank. I have to go to food banks to supplement the food for our house and almost always the fresh produce is too far gone. It works for things like onions and potatoes and beets etc that can handle a few weeks from donation to being given out, but a super juicy tomato? it doesn't make any sense. that whole system really needs to be re-evaluated. - I love the UFC. I have not participated this year but have in the past and have nothing but great things to say about all those who I worked and participated with. Thanks for being here. "If you will it...it is no dream." - Need more participation and publicity, particularly in areas of food insecurity. Need more effort establishing more green community gardens insuring that they are not on contaminated ground - Keep striving for inclusiveness and participation with people of color. Pay attention to their

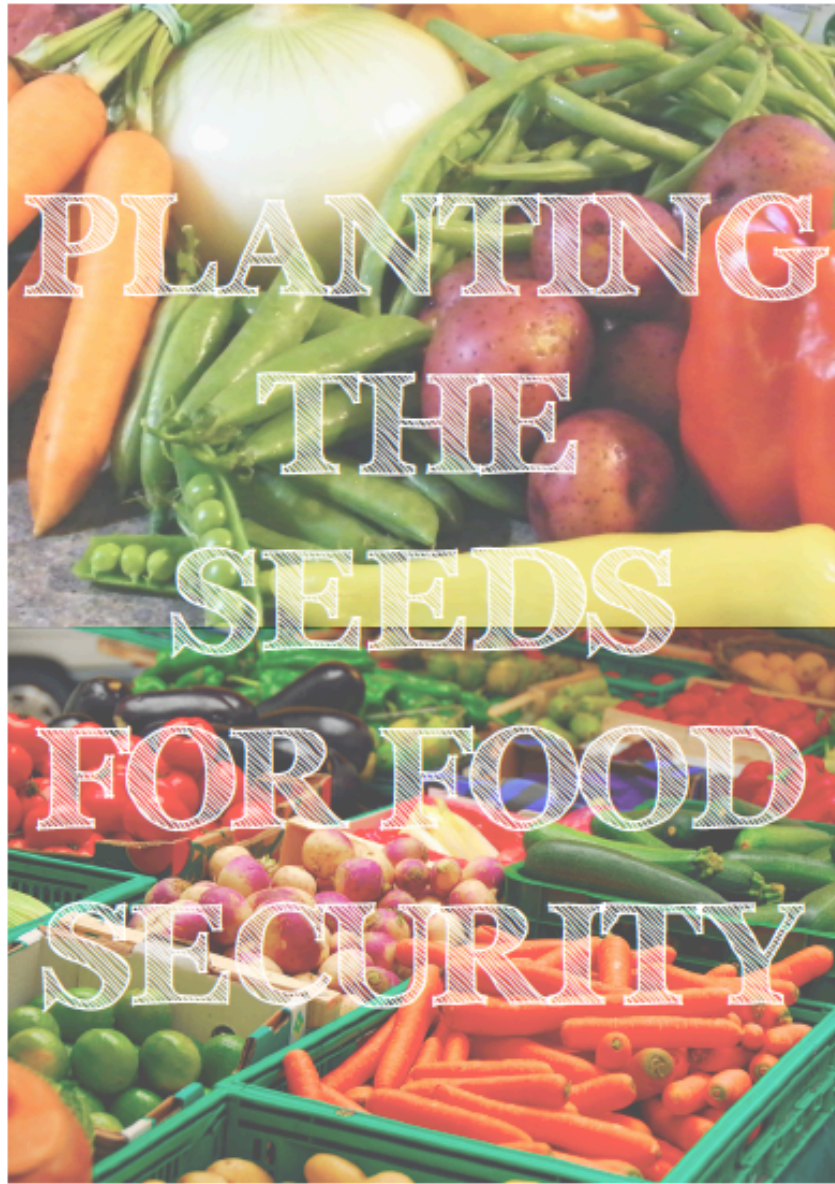
experiences and really take what they say to heart, putting aside our own agenda if need be f--or this sake. A lot of what we do relies heavily on our white privilege and we really need to put that at the forefront of what we do. That's justice. Additionally, keep trying! Keep places at the table for people of color! Love you UFC! - My primary criticism in this context is the authoring of this survey. Many of the questions do not provide the appropriate options or leave gaps in the range of quantitative choices. The Agree/Disagree section needs a neutral option. I have nothing to suggest regarding the UFC. They do what they can within a set of limitations and have developed supportive relationships within the community. - I dont actually work in the UFC garden anymore, I moved and have more gardening space at home now. - There could be better organization/communication within the group; considering that everything is done solely on a volunteer basis, I think things actually run rather smoothly. I think if we were an organization that had some core and paid positions that weren't as susceptible to turnover, things could actually run a bit more cleanly. That isn't, however, the structure under which our organization was founded. I miss my old neighborhood and the times when I could easily walk or bike to any number of UFC gardens. I'm glad to see more appearing in other neighborhoods. (I'm especially excited to see one at NE 15 & Fremont!) - Honestly, the vision I had was simple but I realized that I was too ambitious given where UFC leadership was and where I was coming from. Also too ambitious given when I had had it and when I was given the space to speak. The model is great but, like in most spaces I have worked in Portland, the tension felt and the inconsistent communications are a little frustrating. Organizing as a person of color here necessitates a patience, diplomacy and tolerance that is difficult for me as I am working towards returning to my career. When I was finishing school, it was one thing, but as I entered into a scenario where my engagement with social and food justice was different, I had to bear in mind what I was juggling. At first, it was just about the food access and community and then, as I learned more, it grew to be about the bridges being built across difference. As I began to put the pieces together in my head, I realized that I had a choice on my hands as to where put my time--building someone else's dream or mine. So, stepping down from my role as manager was as much about thinking about where my time is going as well as considering how best to do the work that needed to be done. On making the decision, the response of leadership was clear--instead of inquiring about what informed the decision, there was greater investment in how long I could stay. The classist and inconsiderate response, bearing in mind my historical contribution was just a symptom of that culture. While other managers and apprentices were concerned and understood my decision, the lack of concern was a little disheartening. As an organizer, and a community advocate, the reasons behind the no, and the emotional investment of the places where I have worked spark the extent to which I will bend over backwards for participation. That sense of belonging and visible humanity. It's why I continue to garden; my best friends are there; good conversations are there. I know who I am working with and who I am feeding beyond me and that matters. Whoever shares that concern has my loyalty and unconditional respect. - There is a lack of communication between the UFC and minority groups that may also be in need of better access to organic produce. - I'm no longer participating, largely because the garden where I participated was too far and I didn't feel it benefited the community or neighbors around it as it was closed off in an individual's backyard. The barter market was not a time I could attend, so I didn't get to reap the rewards of gardening or see other gardeners there. In the end I decided to focus on my home garden and volunteer with other organizations. - The question ; "what percentage of your income goes to food" is a little deceiving. Is the question asking what percentage would go to

food if one were not involved with the ufc, or a gov assistance program? Or is the question asking how much of an income goes to food after the ufc?

### Sample Interview Questions: Garden Manager

1. How did you hear about the UFC?
2. How long have you been involved?
3. Why did you choose to join the UFC?
4. What is your involvement with the UFC?
5. What is your opinion of the current industrial agriculture model in the U.S. and other “developed” countries?
6. What steps should be taken to change the current direction of agriculture?
7. Does the UFC take some of these steps?
8. Do you think it is important for people in general to have an understanding of how food grows?
9. How should people connect to their food?
10. What is your perception of the UFC barter system?
11. Do you feel your time spent volunteering is equal to the amount of food you receive through the barter system?
12. What benefits did you expect to receive from being part of the collective?
13. What other benefits do you receive?
14. Do you use any of your own funds to support the UFC?
15. Do you think this economic model could work on a larger scale?
16. Do you barter for other goods or services?
17. Would you like to barter for other goods or services that you currently do not?
18. Has your relationship to the neighborhood and community changed? If so, how?
19. What knowledge or skills have you gained?
20. Will you continue to work with the UFC in upcoming years?
21. Are you able to get the things you need for your garden with little to no funding?
22. How does this empower you to find what you need in other areas of your life?
23. Has your involvement in the UFC changed how you live in other areas of your life?
24. How do you define empowerment?
25. Based on your definition, do you feel empowered by the UFC?
26. Do you feel the UFC addresses any social, economic or political needs?
27. Would you change anything about the UFC? If so, what? (Do you find any flaws?)

A TOOLKIT FOR  
the Urban Farm Collective





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# Acknowledgements

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We would like to give thanks to Janette and the UFC crew

# Impacts of the UFC

" to bring neighbors together to transform vacant lots into neighborhood food gardens for the purposes of education, research, community building and improving food security. "

## *What is the Current State of the Urban Farm Collective?*

The UFC's mission statement is "to bring neighbors together to transform vacant lots into neighborhood food gardens for the purposes of education, research, community building and improving food security." The UFC operates in the inner Northeast neighborhoods of Portland, Oregon, but is looking to branch out and expand their mission to other neighborhoods within the city. The UFC is also assessing whether or not their current mission statement needs to be reworked. The information provided in this report examines the motivations of the participants, the demographic of the neighborhoods in which the UFC operates, and how the current system is actually functioning, thus providing a clear framework for the potential redefinition of the mission statement. Understanding the impacts that the Urban Farm Collective has on its members and its surrounding community is fundamental to assessing whether its mission is being successfully met, or if its participants and community members have alternative perspectives for the collective.

## Methods

### *How Were the UFC Impacts Evaluated?*

The impact of the Urban Farm Collective was assessed through multiple avenues. First, data associated with the barter market and barter point process was acquired through existing information kept by the organization, alongside newly collected data that was obtained throughout the process of this project. Additionally, a largely electronic survey was implemented that collected data revealing the demographics of the UFC participants, as well as further impacts that the collective has on its volunteers. Demographics of the neighborhoods, in which the UFC is located, were analyzed using 2010 US Census data and that information was used to create block level maps. Interviews were also conducted with the food bank

recipients of the UFC produce surplus. Through these avenues of research we were able to assess how the UFC further affects its partners, volunteers and its community.

### *How Was the Barter Point Process Assessed?*

We collected the data points for analysis of distribution, SLUGS earned, SLUGS redeemed and the amount of varieties produced per garden, directly from the UFC database. Using that information, we created easy to read figures and graphs that demonstrate how the barter points are utilized.

### *How was the Survey Used to Acquire Data About UFC Participants?*

By extrapolating relevant information from the survey data, employing both quantitative and qualitative analysis, while withholding biases, we generated a data supported model

representing the average UFC participant. Questions on the survey were carefully reviewed for continuity and clarity. By processing qualitative data we were able to pull common themes and concerns from the responses, ultimately generating a list of corresponding elements. Using location data, we designed a detailed map of participant location in relation to UFC garden location with provided cross streets and addresses.

### *How was the Community Demographic Analyzed?*

We gathered 2010 US Census data and analyzed it at the block group level, at block intersecting a 0.5 mile radius around each of the 14 Urban Farm Collective garden sites. Block groups were checked for population density, racial distribution, and age distribution. Income and education levels were not included in this raw data analysis; maps produced by the City of Portland within

the catchment area are, however, included in this report.

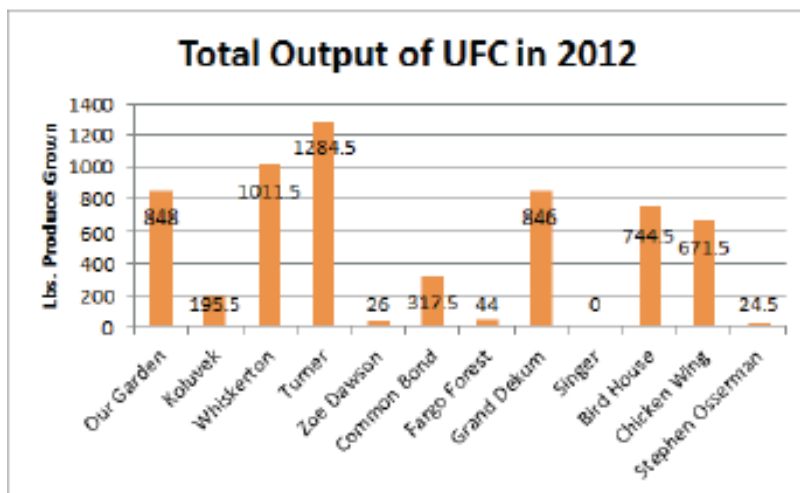
### *How was the Impact of UFC Donations Investigated?*

To find out the impact of the UFC on their recipient of their excess food, we interviewed the president of the St. Andrew's chapter of St. Vincent De Paul, the organization who runs the food pantry. We did a 15 minute interview and a tour of the food pantry to help better understand how the UFC's donations affect the larger community.

## Results

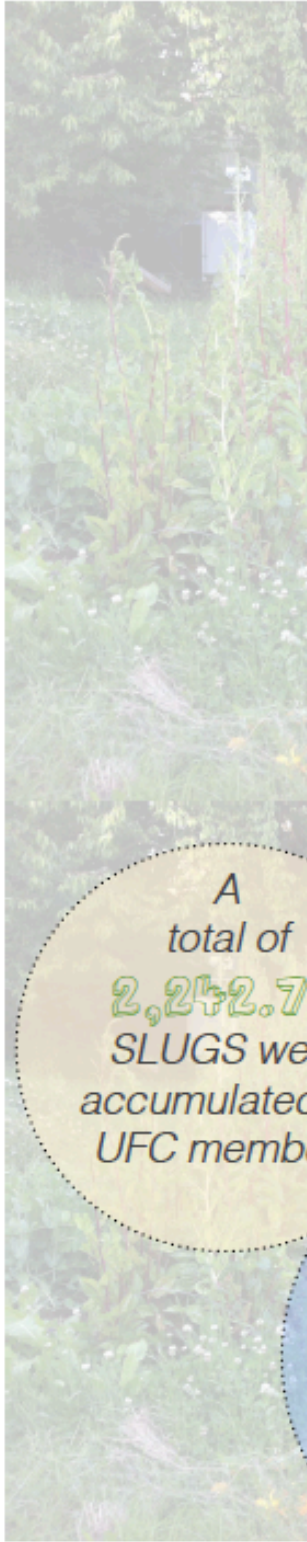
### *How much does the UFC Produce and Where Does it Go?*

Part of the current mission of the UFC is to improve food security through distribution of fresh produce. There are two major avenues through which the UFC distributes its produce. The first is by allowing volunteers to work in order to earn SLUGS, which are then exchanged for produce in a weekly market, and secondly through donations.



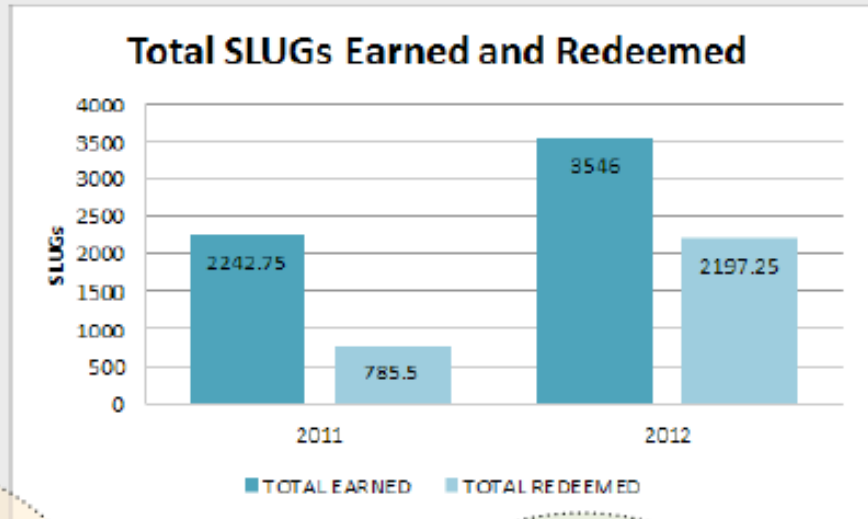
In 2012, the UFC gardens produced 3,006.75 lbs of produce. A total of 3,546 SLUGS were earned by UFC members. A total of 2,197.25 SLUGS were redeemed at the market, 62% of the total SLUGS earned. A 27% increase in SLUGS redeemed was seen over a one year period. The UFC currently donates to St. Andrews Church. In 2012, the UFC donated 710.25 lbs, equal to 24% of its total crop yields to St. Andrews.





### How are SLUGs Actually Used?

The value of a SLUG is loosely based on the cost of buying ten dollars worth produce from New Season's Market. A UFC member earns one slug for every hour worked in a UFC garden. The data below reflects the hours worked and SLUGS redeemed in 2011 and 2012. The accuracy of the data is dependent on how accurately hours were reported. Garden managers often stop reporting their hours later in the season when they have acquired more SLUGS than they could reasonably redeem in the season.



A total of **2,242.75** SLUGS were accumulated by UFC members

In 2011, the UFC produced **2,222** lbs of produce during the June through October growing season.

**785** SLUGS were actually redeemed at the market, only **35%** of the total SLUGS earned.

## Results of the Survey

Listed below is the average demographic and opinions of the UFC participants, according to our data that was retrieved from the survey. From this information, we can denote whether or not the UFC is succeeding in its mission statement, or if further measures need to be taken, whether through policy change or redefinition of the organization's mission. (A breakdown of the individual questions and responses can be found in appendix D.)

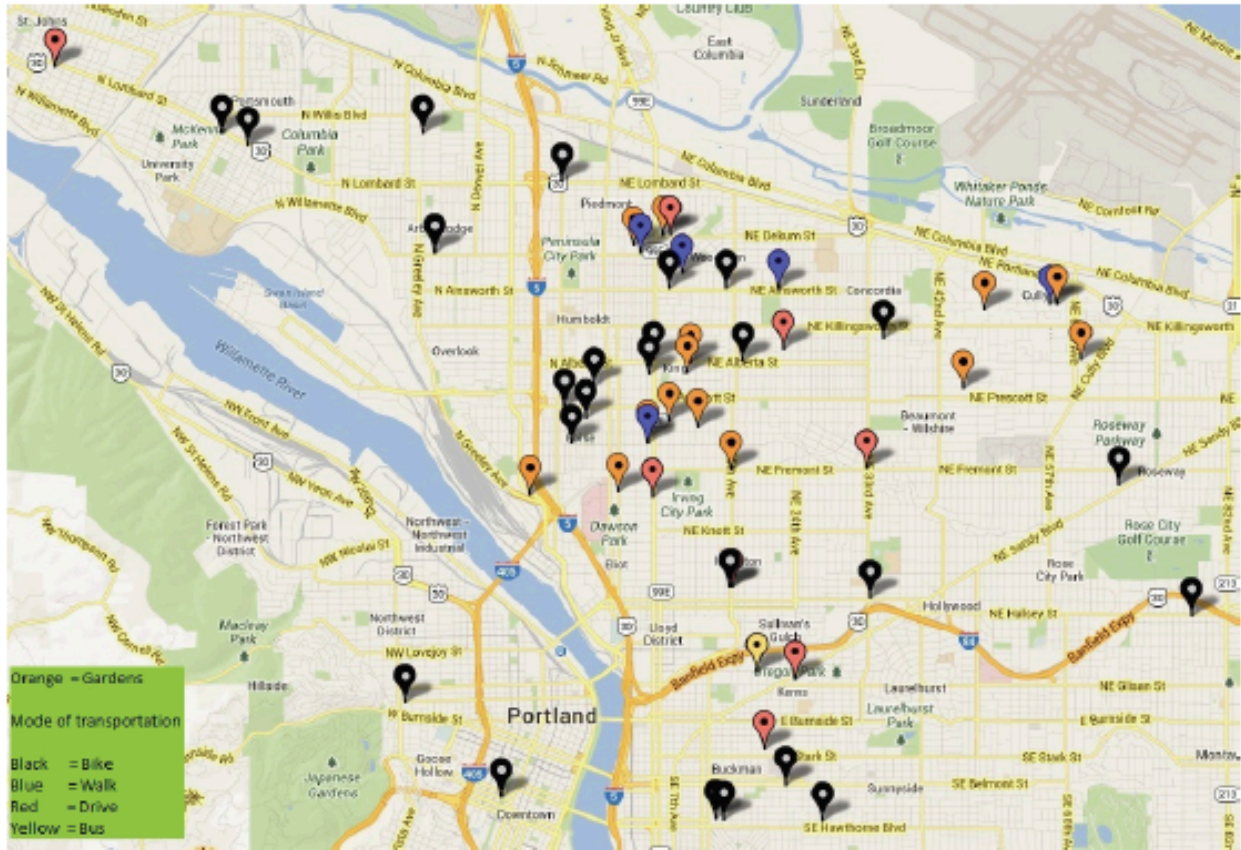
### What is the Average Demographic of the UFC Participant?

- According to our survey, most members of the UFC are new to the collective and were recommended by friends. Volunteers spent an average of less than one hour a week their garden.
- The average profile of a UFC member is a white college graduate between 25 and 34 years old. Most members are employed or self employed and work forty hours or more per week. The average member has no no dependents and rents their place of residence.
- The majority of members bike as their primary mode of transportation . Most people who walk live approximately 0.4 mile from the garden the volunteer at. The average member spends 10-20% of their annual income on food and feel they eat more fresh produce due to their participation in the UFC.
- Most members participate in the UFC to build community as well as learn to garden. While most members possess some gardening skills, most consider themselves intermediate gardeners with much to learn.



## UFC Participant Transportation to the Gardens

According to the survey, the majority of UFC participants bike to the gardens that they volunteer at. When the participant lives more than about three miles from the garden they drive to the location. Those that live more than four miles from the garden take the bus, and alternatively, those that live less than half a mile from the gardens walk.



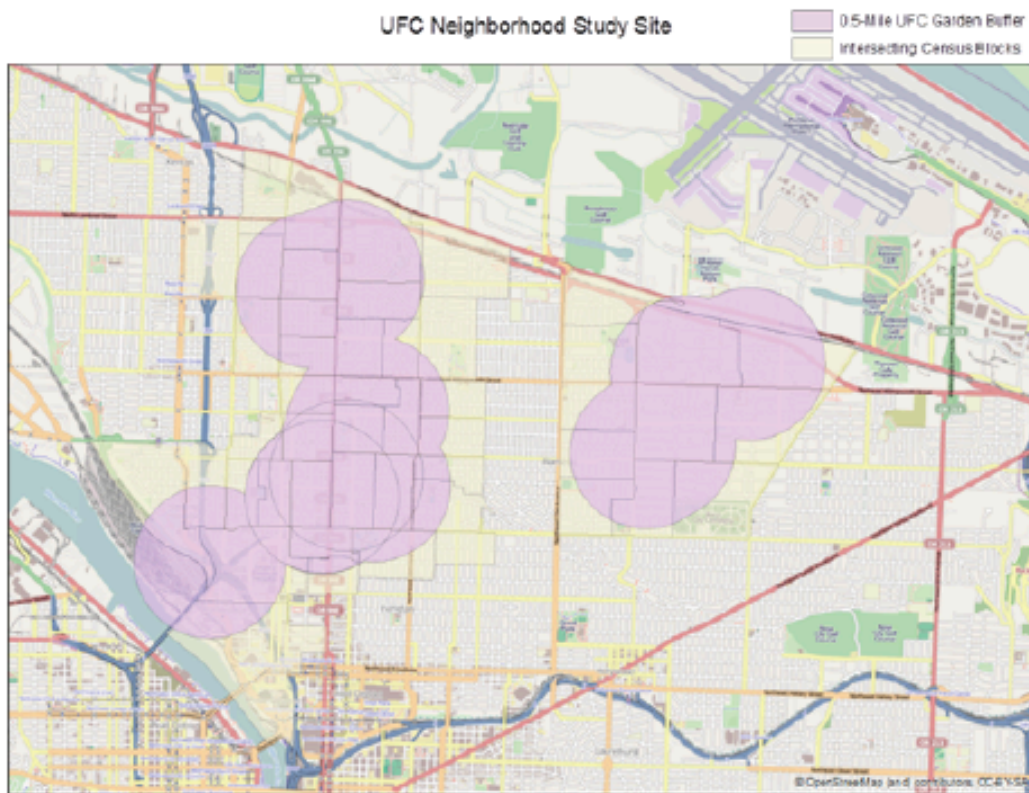
Transportation Mode	Number of People	Average Distance
Bicycle	24	2.9 Miles
Car	8	4 Miles
Bus	2	5.7 Miles
Walk	5	.4 Miles



## Demographic Mapping

### Study Site

The proposed study site for this report includes census block data that intersects with a 0.5-mile radius area around each UFC site. A polygonal representation of the sample site is shown below in Map A:

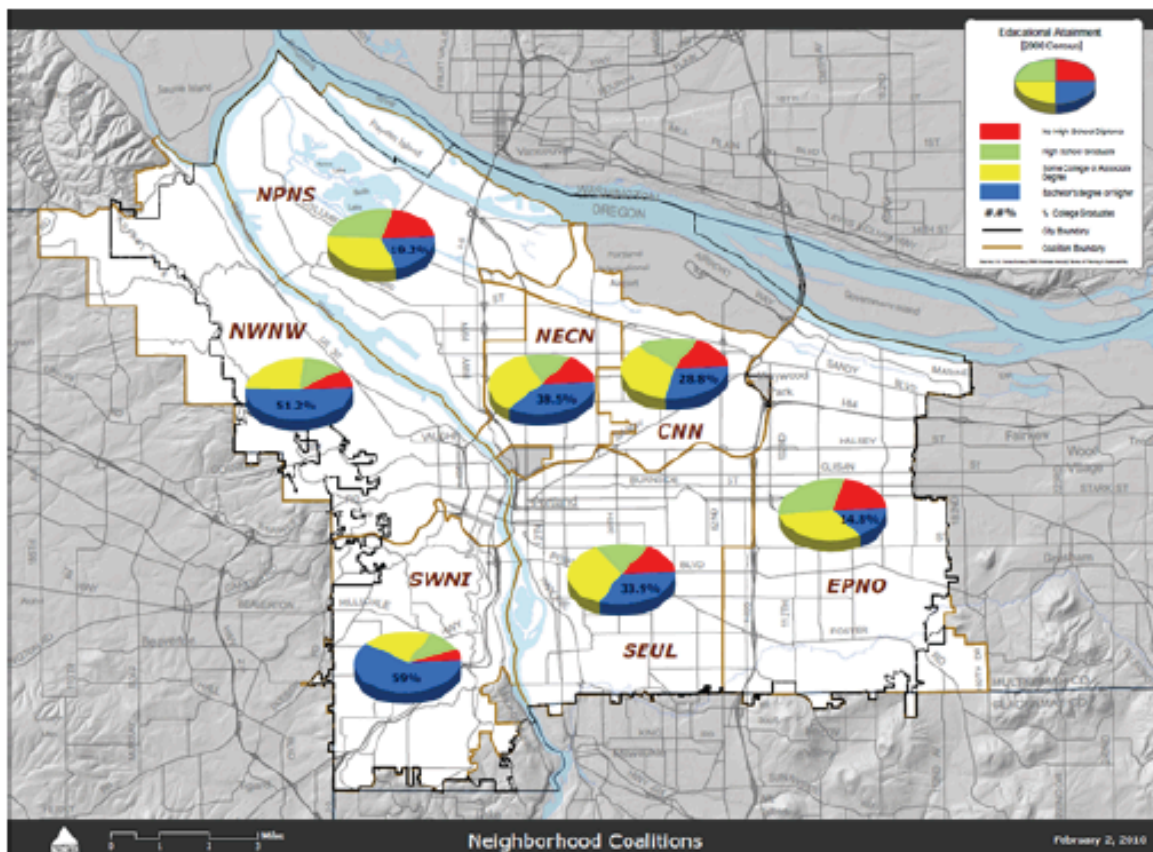


Map A: Targeted UFC Study Site

## Education

Below are two maps that depict education levels within the city of Portland. Map B depicts the overall population's educational statistics broken down by percentage as they occur within each distinct neighborhood coalition within four categories: (1) no high school diploma;

(2) high school graduate; (3) some college or associate degree; (4) bachelor's degree or higher. This information was compiled and formatted by the City of Portland in 2010 and shows that, on average, over 50 percent of Portland residents have either attended, are attending, or have completed some form of higher education, regardless of the area of residence.



Using official US Census Bureau data from 2010 and statistical results from our report's demographic survey a comparison of education levels was conducted to represent the frequency of UFC participants and that of the surrounding neighborhood (0.5 mile radius catchment zone of census blocks data as stated above). Table 1 demonstrates a higher frequency of UFC volunteers who have attained a

bachelor's or graduate degree than those residents of the defined neighborhoods included in the census catchment area. In fact, the combined higher education rate among UFC participants is approximately 87%, whereas neighborhood higher education rates are roughly 62%, respectively.

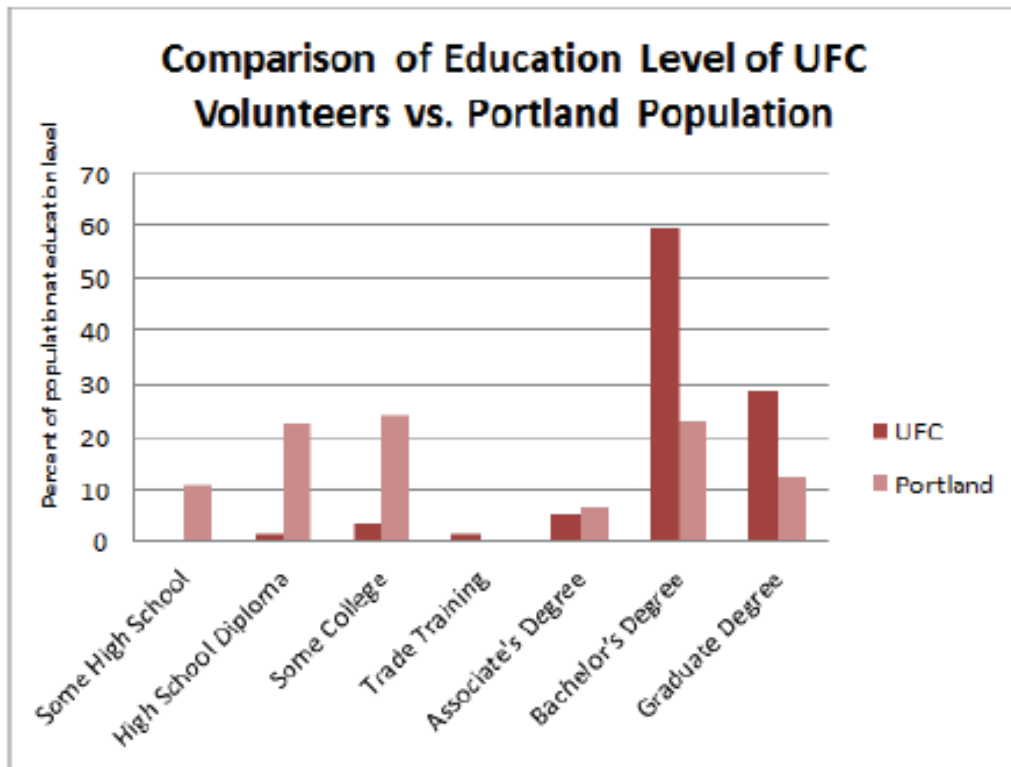


Table 1: Education levels of UFC participants compared to the general Portland Population  
<http://www.clresearch.com/Portland-Demographics/OR/Education-Level-and-Enrollment-Statistics>

		Racial Distribution
Total Population:	50,216	100%
White alone	33,206	66.1%
Black or African American alone	10,021	20.0%
American Indian and Alaska Native alone	606	1.2%
Asian alone	1,270	2.5%
Native Hawaiian and Other Pacific Islander alone	195	0.4%
Some other race alone	2,216	4.4%
Two or more races	2,702	5.4%

Table 2: Racial Breakdown of Targeted UFC Neighborhoods

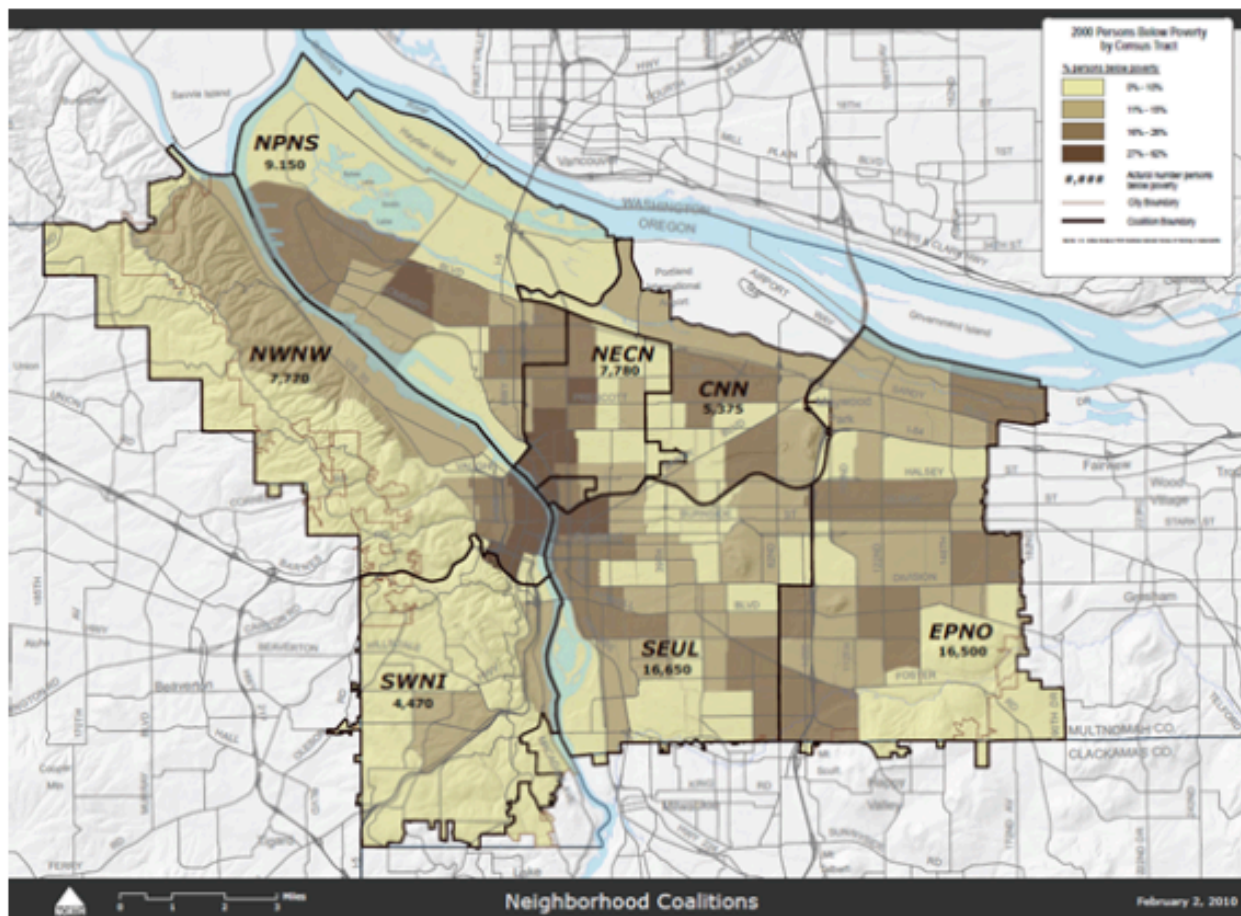
## Racial and Ethnic Demographics

Racial distribution was calculated using the 2010 US census data provided for the targeted neighborhood tracts as depicted in Map A. Average racial and ethnic distribution of the 46 block groups, which intersected with the 0.5-mile buffer placed around UFC garden locations, were calculated and racial frequency rates (%) of the total population were quantified (Table 2). The results indicate that, although NE Portland is considered a racially diverse area, over half of the resident population responded as being fully Caucasian. It is important to note that the Hispanic/Latino population was calibrated separately in the 2010 census data, therefore it was not included in the overall results in the population breakdown. The data census data does state that 15% percent of the population of Northeast Portland is of Hispanic or Latino decent.

## Poverty

Poverty levels throughout the city of Portland are visually catalogued below in Map C, as provided by the 2010 study completed by the Portland Plan. This map depicts the percent value of the population that is below the federal poverty line using defined census tracts as measurable boundaries. The map also shows the number of people living under the poverty line within each neighborhood coalition. Some of Portland's highest rates of poverty can be found in NE Boise-Eliot, neighborhoods where the UFC operates. Neighborhoods in which over 25% of the population lives in poverty are NE Boise-Eliot and SW Old Town.





Map C: Poverty Rates by Census Block in Portland, OR  
 (2010 <http://www.portlandonline.com/portlandplan/index.cfm?c=52257>)

## Consumption

Food security is a community's ability to access affordable, nutritious foods. This part of our study begins with the recommended daily amount of vegetable consumption as provided by the US Department of Agriculture (USDA). These amounts were then compared to the averaged total output of produce measured by the UFC during one growing

season as a measure of impact UFC gardens have on their community's access to fresh produce. The study begins with detailing the total daily amount of recommended vegetable intake, which varies between genders and age groups, as listed below in Table 3.

In order to compare the recommended amount of vegetable consumption during the UFC's growing season (calculated number of days between the first and last date of the UFC Barter Market) and the total averaged amount of UFC produce production, the information provided in Table 3 was used in conjunction with age and gender demographics of the targeted intersecting block groups as shown in Map A. The result of this calculation (Table 4) is intended to quantify the amount of vegetables (in tons) that are recommended to satisfy daily consumption, as suggested by the USDA, for the entire population of the included neighborhoods over the 153 day period of one UFC growing season. The results of Table 4 emphasize a continuing need for local, sustainable supply of vegetables in order to achieve the UFC's goal of food security. As a comparison, the number of UFC participant members that were registered at the time of this writing for the 2013 season and their corresponding amount of vegetables per growing season is also included in this report. Analysis of the results of this calculation reveals that the UFC has been unable to, so far, meet the daily needs of vegetable consumption for the amount of volunteers that are active members during the growing season and as a result, expansion is critical to the success of the UFC's goal of local food security.

	Individual cups/day
<b>Male:</b>	
5 yrs and less	1
5 - 9	1.5
10 - 14	2.5
15 -17	3
18 - 34	3.5
35 - 74	3
75 and up	2.5
<b>Female:</b>	
< 5 yrs	1
5 - 9	1.5
10 - 14	2
15 - 64	2.5
65 and up	2

Table 3: USDA Recommended Daily Amount of Vegetable Consumption ([http://www.choosemyplate.gov/food-groups/vegetables\\_amount\\_table.html](http://www.choosemyplate.gov/food-groups/vegetables_amount_table.html))

	Population	Total Vegetable Consumption (tons) per UFC (153 days) Growing Season
Total Population of Targeted Neighborhood Block Groups (Map A)	50,216	4,983
2013 Enrolled UFC Participants	153	18
Average (in tons) Total UFC Produce Production (per growing season):		1.5

Table 4: Comparative Analysis of Population Statistics and Recommended Vegetable Consumption (in tons) per 153 Day Growing Season and the Average Amount (tons) of Vegetables Produced by UFC Farms.

### *Results of St. Andrew's Interview*

St. Andrew's hosts a food pantry that is associated with St. Vincent De Paul, providing emergency food for about 200 families, as well as assistance with bills and other emergency necessities. The St. Andrew's food pantry is the sole recipient of fresh food from the Urban Farm Collective that remains after market days. While much of the food produced by the UFC is distributed to its volunteers, a large quantity is not claimed on market days. Therefore, approximately 25 percent of all food grown by the UFC goes to the St. Andrew's food pantry. The pantry relies heavily on the UFC for their fresh produce. When the UFC is not in season, only 10-15% of their food is fresh, most of which comes from irregular donations. During the UFC season, St. Andrews has significantly more

produce as well as a larger variety. While St. Andrew's additionally receives food from organizations such as the St. Vincent De Paul, the Oregon Food Bank, the Portland Fruit Tree Project, as well as federal food programs, most of these donations consist of processed or frozen food, speaking to the significance of the UFC's fresh food contributions.

St. Andrew's serves a demographic comprised of about half Black or Caucasian, with a significant Eastern European population. The other half of their clients are primarily Mexican, Haitian or Mayan. Much of their population represents a wide range of family types, while the primary languages spoken by the patrons are English, Spanish and various Mayan languages. All food pantry information is available in both Spanish and English, although the food pantry staff often do not speak Spanish.



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# Barriers

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“ First we scavenge, then we borrow, then we buy as a last resort. ”

## *Fundraising Obstacles:*

The UFC has (and currently only requires) a small budget of approximately \$3,000 per year. The money is used mostly to create and maintain gardens for the collective. There is no paid staff currently. The UFC maintains an emphasis on frugal gardening by saving their own seed, growing their own starts, and creating as much of their own compost as possible. Director Janette Kaden declared, “First we scavenge, then we borrow, then we buy as a last resort.”

Three basic organized fundraising strategies are regularly used to generate the annual budget: grants, fundraising events, and donation campaigns. The UFC received the Share the Good grant of 2013 from Seeds of Change. The UFC has also partnered with the Oregon Sustainable Agricultural Land Trust (OSALT) which has provided land, insurance, and some materials for the UFC. The UFC provides an annual report of their accomplishments and garden plans to OSALT. There have been fundraising events for the UFC semi-annually over the past four years, though these events have proven to be difficult to plan and were found to be rather costly themselves. However, there remains a desire to refine this process to create an annual fundraiser that not only generates revenue for the

collective, but also serves as a platform to showcase the hard work which happened over the past year. The UFC partners with the Willamette Weekly to host an annual funding drive through personal donations which includes solicitation of money, volunteer time, and materials. In addition to these fundraising efforts, some participants of the UFC choose to donate their own materials or money to the UFC. The UFC has successfully used the Kickstarter website to generate funds for their project in the past.

## *Volunteers and Administration Communication and Retention:*

There has been a lot of early success in laying a structural foundation for the UFC in terms of physical needs and infrastructure. Naturally, as the most apparent needs of an organization are met, the gaze turns to refining the internal features of an organization to maximize efficiency and fortify the mission statement of the organization. From interviews with the planning committee and garden managers, some important areas of development have presented themselves; namely issues surrounding communication with, and retention of staff and volunteers. Retention of volunteers and garden managers was amongst the most common concerns reported during interviews with UFC staff.



The UFC experiences an annual reduction of both volunteers and staff as the weather begins to turn and people's summer calendars fill up. The result of this leaves a lot of work for the remaining members of the UFC. Additionally, this complicates annual reports for the UFC and makes future planning efforts more difficult. An insecure volunteer base and staff results in less certainty for the effectiveness for the organization. This phenomenon has sparked a debate amongst administration as to whether some budget money should be used as stipends or salary for the staff of the UFC. Currently the administration remains undecided on this topic. The administration must decide upon what solutions to this issue will coalesce with their mission statement and goals of the organization.



Also on the minds of the staff is how the UFC will handle the passing of the torch from leaving administrators to their replacements. The organization would like to have some protocol in place for the inevitable transition of administration. Additionally, there appears to be a rift developing within the staff between the administration team and the garden managers. Communication difficulties between the coordinators of nodes and the central administration appear to have an impact on defining clear goals and implementation. An example of a goal

which has been impacted by this communication breakdown is the UFC's intention to incorporate a larger minority population in their collective. This initiative has remained stuck in the planning phase as staff struggles to define a cohesive approach of moving forward to achieve this goal.

Additionally, garden managers and administration are asking for a centralized training to support the garden managers.

Previous trainings have been attempted, though self-report of both parties argued that they were not very effective. The UFC understands there is a substantial agricultural knowledge-base within the minority community of NE Portland and wishes to build a collective that empowers all of the residents of Northeast Portland.

### *Site Usage*

Site utilization analysis produced some interesting findings. Individual UFC sites use from 25-50 percent of lot area for beds. An aggregate number of lot usages for the entire UFC proved not to be representative of individual gardens as lots usage varied greatly. Additionally, using bed size as an indicator of lot usage did not reflect the use of resources like sheds, paths between beds, and compost piles. One constant variable of site utilization is row width; consistently all rows averaged 3 feet in width; though varied greatly in length. Pounds of food production were not found to correspond with the amount of lot used for beds as some crops are much heavier and are larger producers than others (i.e. cucumbers vs. chard).

Gardens growing primarily leafy greens were found to produce 1/3 lb. of food per square foot and gardens growing nightshades such as tomatoes and potatoes averaged yields of 1 lb. of food per square foot.

#### Challenges with Resources:

While the UFC consistently faces difficulties in obtaining all of the

resources it needs, this struggle can also be viewed as a great success story of the UFC as it demonstrates the UFC's emphasis on community building. The initial barrier for the UFC was to find a place to grow the food. The UFC took this challenge to the owners of vacant lots amongst Northeast Portland. As the organization gains public visibility, the acquisition of land becomes less difficult. Indeed, the most recent two gardens have come from lot owners approaching the UFC

initially. The leases are typically 1 to 3 year lot leases. This presents a problem for the UFC as it makes it difficult for them to plant perennial crops, effectively reducing the biodiversity of the food the UFC can provide to the community.

The partnership with OSALT has proven to be an effective step towards sustainable land acquisition as the OSALT property belongs to a land trust which prevents land from being developed for any reasons outside of organic gardening. The result of this is that in the OSALT sponsored gardens perennial food is grown. Another interesting discovery during

the acquisition of land showed there are some additional steps to incorporating existing gardens into the UFC which are not present when creating new gardens from scratch. Insurance and a tax exempt ID number were other resources OSALT provided for the UFC.



#### *Addressing the Barriers:*

As with any organization, there are barriers to success within the UFC. Through a process of trial and error, the UFC has found some solutions to these hurdles, and other more complicated subjects remain on the table for exploration. In this section barriers to the success of the UFC are identified along with possible solutions to these problems. The barriers mentioned were obtained through interviews with UFC staff, volunteers, and St. Andrew's. Suggestions in this section are a combination of literature review, group brainstorming, suggestions from the staff and volunteers surveyed, and advice from St. Andrew's.

## *Recap of Barriers:*

### *1. St Andrew's unmet needs*

St. Andrew's, while acknowledging the gracious contribution of the UFC, requests support in keeping fresh foods on their pantry shelves for more months during the year. During fall, winter, and spring months the pantry reports that less than 10% of their food is fresh. Additionally, the pantry wishes to increase the amount of popular foods available to them such as potatoes and onions as these foods are in high demand and tend to go quickly. Finally, the pantry requests more culturally appropriate foods for latino populations such as peppers and tomatillos to help better support this demographic.

### *2. Creating and annual fundraising event*

Many of the administration team when interviewed expresses interest in creating an annual event to help raise funds and solicit materials for the UFC. There have been attempts to host annual events in the past, though interviewees reported these efforts were often costly themselves and were not as successful as the UFC would like them to be.

### *3. Communication between administration and staff*

Concern from both the central administration (i.e. planning committee) and the staff (i.e. garden managers and apprentices) has been aired about effective communication.

### *4. Retention of staff and volunteers*

The UFC experienced an annual reduction of staff and volunteers as the weather turns and people's summer calendars begin to fill up. This is a particularly difficult issue when people in staff positions such as garden managers and apprentices begin to leave the UFC over the growing season as it leaves the gardens without the leadership it needs to be successful and puts additional pressure on other members of the UFC to take over additional tasks.

### *5. Involving more diverse populations*

The UFC wishes to be an organization accessible to the entire Northeast Portland community. Upon interviews with administration and staff and review of the UFC volunteer demographics, it became clear that the UFC experiences a lack of minority volunteers, staff, and administration; as well as a lack of financial and educational diversity.

### *6. Signage and Flyers*

The issue of signage has been presented previously to the UFC and a fair amount of progress seems to have taken place over the past year. However, many gardens remain without clear indication of what they are. Additionally, some volunteers reported discomfort working in a place which appeared to be no more than someone's backyard, especially when alone or in a small group. Clear and large signs could also help to increase the public visibility of the UFC and insight curiosity of everyday passers by.



### 7. *Bilingual Materials*

As an extension of creating a more inclusive environment for minority groups, bilingual materials such as flyers, website tutorials, calendars, etc... will make UFC involvement more accessible to Spanish speaking populations. Spanish speaking populations may be regarded as an important impact demographic as they represent a large population in NE Portland and account for approximately 50% of the families which use the pantry.

### 8. *Single barter market*

When surveyed, many volunteers reported their interest in volunteering declined as they accumulated SLUGS and were not able to attend the barter market. Additionally, if the UFC wishes to be useful to families who are experiencing food insecurity, the market must operate on a variety of different times and days to reach families with schedules complicated by working schedules.

## Solutions

### *Suggested Solutions and the Barriers they Address*

<b>Suggestion</b>	<b>Barriers Addressed</b>
Use Season Extenders	# 1
Create Bilingual Materials	# 1, 5, 7
Streamline Website	# 3, 4, 5, 7
Develop Volunteer Startup Kit	# 4
Restructure Administration and Staff	# 3, 4
Use Clearly defined Signage for all Gardens	# 6
Expand the barter Market	# 4, 8
Assign Staff Member or Administrator to the St. Andrews Pantry	# 5
Seek Community Partners	# 2, 4, 5

*Use season extenders: addresses barrier #1*

The use of season extenders such as hot or cold frames, greenhouses, or clothing could extend the season to begin much earlier and continue much later. This could help to assist St. Andrew's as they seek to provide more fresh food for their patrons during the fall, winter, and spring months. This could also improve the production of heat-loving crops such as tomatillos or peppers which St. Andrew's needs more of to provide culturally competent foods.

*Create bilingual materials: addresses barriers # 1, 5, 7*

Creating bilingual flyers could make the gardens more accessible to minority populations. Spanish speaking materials should be first priority for the creation of bilingual materials. Creating bilingual content on the website will also help to make the UFC more accessible to Spanish speakers. Having tools such as a bilingual calendar or a map of gardens with Spanish speaking garden managers may help to make the UFC even more inviting to Spanish speakers. Signs for labeling the garden should be done in English though should be accompanied by flyers in Spanish; and gardens with Spanish speaking garden managers may wish to advertise such on the garden's sign.

*Streamline the website: addresses barriers # 3, 4, 5, 7*

The website is the primary way volunteers learn when garden managers will be at gardens. It also will serve as a place of initial contact for new volunteers. The website in its current condition has all of the important

information available, though proved to be difficult for new UFC members to navigate. Consider creating a "Getting Started" button which would take a prospective volunteer to a page with all the information they would need to know when wishing to start their volunteer relationship with the UFC. Also, it is recommended that the UFC creates a tutorial on how to get started with the organization (also in Spanish) on the home page. The website also may be an appropriate place to house a communication forum between administration and staff members.

*Develop a volunteer startup kit: addresses barrier #4*

Gifting a startup kit to volunteers may help to increase volunteer buy-in. This kit could include an initial free "slug" for signing up to encourage exploring the barter market, in-kind materials such as gardening gloves, sunscreen, a nail brush, and a signed letter from the director thanking them for their interest in the UFC (also in Spanish).

*Restructure administration and staff: addresses barriers # 3, 4*

Survey results and personal interviews showed a need for more communication and connection between the garden managers, workers and the greater UFC community. Garden managers already committing time to their gardens have found it difficult to feel connected to the greater UFC and in turn must reserve time to connect with garden volunteers. With this in mind, recommendations have been made to restructure the UFC administration and add a few positions which will focus on enhancing communication between staff appointments within the UFC. This will also serve as an

opportunity to create clear and well defined roles of administration and staff. It is also recommended the UFC pursue measures beyond SLUGS to keep administration and staff engaged throughout the growing season. This could include providing administration or staff with a stipend for their time on the project. This could also include partnering with existing organizations which seek leaderships, practical, or job skill development. The UFC could also partner with departments at local colleges which require students to acquire internship placements for college credit to fulfill some of these roles; or take World Wide Opportunities on Organics Farms members for long term stays. All of these community partners listed may be able to provide the UFC with staff and administration members who are able and compelled to see the growing season through from start to finish.

*Display clear signage at all gardens: address barrier #6*

The presence of clear and informative signage at all of the gardens in the UFC will help with branding and public visibility. These signs should include a website to get more information and be accompanied by a flyer with additional information both in English and Spanish. The UFC may consider identifying gardens with a Spanish speaking garden manager on the sign.

*Expand the barter market: addresses barriers #4, 8*

Surveys indicated that it is difficult for many volunteers to make it to the weekly barter market. In fact, there were several reports of volunteers deciding to turn their effort to their

own gardens exclusively because they were not able to attend the barter market and felt their time with the UFC was better spent elsewhere. It is recommended that the UFC consider adding an additional market day or at least time so that other members of the UFC may participate in the market. The UFC may also consider having a barter market (perhaps only monthly to generate interest) at St. Andrew's during the time the pantry is open.

*Assign a staff member to the St. Andrew's pantry: addresses barrier #5*

Having a staff member or administrator present at St. Andrew's could help to inform the public about the work the UFC is doing and how to get involved. This would be an opportunity to educate community members about the mission of the UFC and how the elements of the UFC's mission benefit them and the whole community. It would be best if there was at least one Spanish speaking UFC member present for these outreach opportunities.

*Seek community partners: addresses barriers #2, 4, 5*

Additional community partners could provide volunteers, staff, and administration as mentioned above in the restructuring of administration and staff section. Additionally, some community partners may help to inject capital into the organization by way of funding, materials or networking. Other community partners may help with the planning stages while the UFC goes through transformations as it grows. Partnering with other non-profit and faith-based organizations in Northeast Portland and community centers may help to encourage community buy-in from minority community

members. Finally, some community organizations exist solely for the purpose of helping to organize and mentor blooming non-profits. A website address to a Google map we created that lists potential community partners is located under the Appendix.



### *Digging Deeper into Some of These Recommendations:*

#### *Website Suggestions:*

Our assessment of the website's purpose is, in order of importance:

1. To provide resources for people who are new to the UFC.
2. To allow UFC volunteers to find work parties that they can come to.
3. To allow Garden Managers a simple means of communication.

We find that the website does a good job of achieving these goals, but there is room for improvement, as navigation of the website, as newcomers, was initially difficult. We propose that a clear tutorial of UFC be placed on the front page of the website. This tutorial would include step by step instruction of how to navigate the website to find work parties, and how the barter market works, e.g. a guide to becoming a frequent volunteer.

The tutorial should be available in English and Spanish. Essentially, what it would require is a 'Get Started' button that would efficiently outline the goals and processes involved with volunteering for the UFC.





### *Volunteer Welcome Kits:*

This would be used to encourage buy in with the volunteers and a guide for questions they might have. The materials could be donated items from local garden, farm and grocery stores. Providing information and materials can empower new volunteers to become active in gardening, both within and outside of the UFC's gardens.

Such a kit could include:

- Welcome letter from Janette thanking the volunteer for their time and effort in the collective food mission to the community.
- Information sheet of do's and don'ts, contact numbers (emails) for garden managers and a few frequently asked questions.
- Small-donated trinkets such as gardening gloves, sunscreen, and bug spray placed in a reusable tote preferably with UFC logo.



### *Bilingual Information:*

A part of the UFC's mission is to remain active in advocating food security. Spanish speakers may be some of the least food secure people. The words "diversity" and "community" came up often in the survey, indicating that the majority of the volunteers and white, English speakers. Making the UFC accessible to another subset of the community helps to fulfill both of these values. There are already Spanish speakers working in the UFC, and it would take little additional effort to make the UFC fully accessible to Spanish speakers. However, since garden managers and barter market volunteers cannot possibly predict the presence of monolingual Spanish speakers, if there are materials present in Spanish on site, then managers and volunteers must be able to adequately fulfill and respect the expectation that participants will be able to communicate with representatives of the UFC.



### *Proposed Restructure of Administration and Staff:*

In general, survey results and personal interviews showed a need for more communication and connection between the garden managers, workers and the greater UFC community. Garden managers already committing time to their gardens may have found it difficult to feel connected to the greater UFC and then in turn, connect to other garden volunteers to the organization. With this in mind we have made recommendations to reallocation and restructuring of administration and the addition of a few positions like a garden manager liaison that could focus solely on connections within the UFC.



Survey results indicated that members would like to see the UFC act creatively "with little or no dependence on money," and at the same time to expand into other neighborhoods "so more people will have access to space to garden and grow food." However, as one survey respondent pointed out, "the model is great but, like in most spaces I have worked in Portland, the tension felt and the inconsistent communications are a little frustrating." This is caused, no doubt, by the fact that everything is done solely on a volunteer basis. Another respondent, sharing similar sentiments, wrote, "I think if we were an organization that had some core and paid positions that were not as susceptible to turnover, things could actually run a bit more cleanly."

There are a number of questions to be considered before a paid position is proposed. A paid position is not in line with the traditional structuring of the UFC. Young people, such as the ones in the capstone who wrote this document, are often eager to work for incentives other than money, such as high school or college credit, or the opportunity to build their resume with an internship that has a small stipend. The possibilities of tapping into the student population has potential to buffer difficulties noted in maintaining a workforce through the summer. Other ideas could include organizations like World Wide Opportunities on Organic Farms (WWOOF) to provide volunteers in the summer. These ideas would require the attention of someone to manage them see below Youth Garden Coordinator, Community Engagement Coordinator and Education Coordinator in future participant expectations. (Refer to Appendix C for a complete list of proposed staff roles.)



#### *Signage and Other Media for Outreach:*

The gardens must have fully visible signs that state the name of the garden and its connection to the UFC. Without the sign the UFC garden spaces appear as private property and they are not being advertised as an asset to the community. One survey respondent declared this by writing "I didn't feel it benefited the community or neighbors around it as it was closed off in an individual's backyard." It is acceptable if the sign is just in English because it will just have basic information on it, perhaps just the garden name and UFC logo. However, below the sign there ought to be a large poster that will be in both English and Spanish.

The poster's purpose is to advertise the function of the UFC garden as an asset for community members both to grow their own food and to build community. The poster should clearly state that community members and their families are welcome to come grow their food at the garden and it should have contact information for the garden manager and at least one other person to get in touch with.

Next to the poster there should be a stack of flyers which clearly spell out what the UFC garden offers, such as space and tools for growing food, and what is needed from participants, such as volunteer hours and perhaps seeds. The flyers should also explain the UFC as an asset to promote food security and healthy food. The flyer should explain both the economic assets of community based agriculture and the social ones, such as meeting your neighbors and teaching your kids about gardening and healthy food.

It is our understanding that the need of signage was addressed by last year's capstone group, however, following our analysis we feel this is still a strong need. There are UFC gardens that don't have signs and one's that give no indication of their purpose. We feel that a UFC garden will never reach it's full potential until its use is made clear to the untrained eye through the use of signage, an informational poster, and a flyer with more in depth information about what the UFC offers with contact information for garden managers or volunteers.

Putting up signs and posters and flyers will require investment but it will magnify the UFC's impact on the community. How many people would go eat at McDonald's if instead of having a bright red sign and giant golden arches it was just an unmarked building? Similarly, the UFC cannot expect to reach its intended audience without a large sign, an informational poster, and an even more informational flyer that can be taken home and shared with others. (refer to Appendix A for flyer concept art.)



### *Barter Market Expansion*

Alongside the distribution of the UFC's produce, St. Andrew's and the UFC should also host a barter market, that is opened up to individual contribution and exchanges. While there is a desire by UFC members to operate as much as possible outside of the monetary system, SLUG's still have a variable economic value and only by working with the UFC can one 'mint' a SLUG. Many gardeners are more comfortable with working on their own individual gardens, many of whom may have excess of one particular food product or another. The UFC has room to experiment as it expands.



## LEARNING FROM EXAMPLES

Success for any community focuses on the people that live and work within the community. The primary focus of any community must be the people and to include, beyond current stakeholders, to involved "hard to reach" groups such as children and the elderly.

### *Examples from other Successful Community Programs*

- *Denver Urban Gardens (DUG)*

This program has been helping the Denver community for 25 years and assisted in the start of 100 gardens. The Delaney Community Garden is a 30-acre food garden that helps bring fresh produce to 500 families using CSA in cooperation with WIC program. They also use a barter system that pays 1 bag of produce for each hour worked.

- *Magic Bean Farm*

Located in West Seattle Magic Bean is a hand managed, better than organic farm that primarily focuses on soil composition. In addition to a successful CSA Magic Bean Farm covers every inch of soil with living plants enriching the vitality of the soil for successful fruit and vegetable production.

- *Growing Power*

Taking the Midwest by storm Growing Power is a 100%

sustainable farm located in Milwaukee Wisconsin. By engaging youth to work in greenhouses Growing Power has expanded to a project with national recognition. From education to training this organization is leading the country with innovative ideas and success stories.

In addition to local community farm programs many are coming to the realization that the food problem is even bigger than imagined. Many are seeking different ways to grow, produce and put dinner on the table.

- *Alt-Market.Com*

This is an online resource constructed by Brandon Smith serving the globe by providing resources to facilitate networking and encourage local community action by the exchange of ideas and possible solutions. Smith encourages alternative forms of exchange such as barter systems and increasing local farmer co-ops. He believes that by supporting local economies mass centralization will be decreased.

- *Time banks and community exchanges*

Pioneered by Edgar Cahn in 1980 as "service credit banks," time banks are intended to reduce community partners' dependence on the monetary system. Traditional social services are re-configured by creating a social network in which members can exchange services directly. While time banks are characterized by service-for-service 'hour' exchanges, the UFC can be understood as a service-for-product time bank.



## *Strategies to build community participation:*

- The Groundwork USA Network- a national urban greening organization network.

This report lays a framework for overcoming barriers within neighborhoods in need. Their work ranges from land reclamation projects to facilitating urban food security programs. The approach involves combining economic development with environmental sustainability strategies within a holistic methodology. This manuscript also includes numerous case studies of organizations improving ways for land development and for residents to be included in the decision making process.

- The work of Marshall Ganz focuses on building strategic capacity by interaction of four specific factors; organization, leadership, network, and cultural factors. Through these, an organization can be financially accountable, have a mix of outside and inside leadership, multiple diverse ties to institutions and promote unity among different cultures.

- The Dudley Street Initiative took place in Boston during the mid 1980's. This story is especially important because it shows what happens when outsiders think they know what is best for a community. These outside views are vastly different from what the community themselves think is important for success. By including community members in processes before

change will ensure the continuation of the project, in addition to increased investment by the community members themselves.

- Capacity- Focused Alternative is a development of policies and activities based on capacity. This is vital to community development because local people are committed to investing themselves and resources in the effort. In addition it can prove futile to wait for outside help. Community development must start from within. An important piece to this strategy is to identify capacities and assets from both local individuals and organizations. From here new combinations, structures and sources of income can begin to shape the community.

- The Role of Organizing- First must establish potential stakeholders. Organizing plays vital role of creating leadership, developing knowledge and confidence to act. These skills help target resources needed for tangible action to take place.

*Table of Community Partners in Northeast Portland* (refer to appendix B for a map of potential community partners.)

Node	Organization	Asset	Contact	Notes
Peninsula	Sitton Elementary	Garden in courtyard which grows for cafeteria and families in need	Every 3rd Wednesday of the month: Parent-Teacher Association meets in the staff lounge at 6-7pm	
Peninsula	St. John's Neighborhood Association	Potential community bridging	2nd Monday of each month: 7pm at 8427 N. Central Ave	
Peninsula	James John Elementary	Part of the Edible Schoolyard Project	7439 N Charleston Ave	
Peninsula	Sitton Elementary	Part of the Edible Schoolyard Project	9930 N Smith St	<a href="http://www.pps.k12.or.us/schools/sitton/408.htm">http://www.pps.k12.or.us/schools/sitton/408.htm</a>
Peninsula	St. Johns Community Center	Potential market garden space available for use	8427 N. Central Ave. 97203, 503-823-3192	easy access by 3 bus lines
SE	SE Uplift Neighborhood Coalition	Small grants up to \$4,000	Telephone: 503.823.3192	
SE	Creston-Kenilworth Neighborhood Association	possible networking/ partnerships	4th Monday from 7-9pm at Community Music Center: 3350 SE Francis St. Phone: 971-266-1516	
SE	Y Arts Center	Possible sites or host for a market	6036 SE Foster Road, Portland, OR 97206; Phone: 503-771-0261	yartscenter@ymca cw.org
SE	St Antonio's Coptic Church	Possible partnership	4422 SE 65th Ave. Portland, OR 97206; Phone: 503-775-1678	st-antonicus.org
SE	Kern Park Christian Church	possible host of market garden?	6828 SE Holgate Blvd., Portland, OR 97206	church is located across from large vacant land <a href="http://www.kernpark.com/">http://www.kernpark.com/</a>
SE	Mt Scott Learning Center/High School	Possible partnership with Service Learning Program	6148 SE Holgate, Portland, OR 97206; Phone: 503-771-8880	<a href="http://www.mtscottlearningcenters.org/service_learning2.htm">http://www.mtscottlearningcenters.org/service_learning2.htm</a>
SE	Woodstock School-Mandarin Immersion School	Possible Partnership	5601 SE 50th Ave, Portland, OR 97206; Phone: 503-916-6380	
SE	Creston Elementary School	Part of the Edible Schoolyard Project	2nd Wednesday of the month: Parent-Teacher Association meets 6:00-7:00 pm in the Creston Library	<a href="http://www.crestonschoolpta.org/Home_Page.html">http://www.crestonschoolpta.org/Home_Page.html</a>

### *Conclusion:*

The UFC's mission statement, "to bring neighbors together to transform vacant lots into neighborhood food gardens for the purposes of education, research, community building and improving food security," has been considerably successful since the organization's implementation. By utilizing this toolkit the organization has the opportunity to further understand its existing impacts, address its barriers and consider solutions that have the potential to expand their mission. We hope that by composing this comprehensive assessment of the UFC's current state, the organization can become familiarized with the pragmatic necessity of reworking their mission statement, as well as adopting fresh implements that would aid in the mutual benefit of all participants.

## **Blue Economy Principles**

1. Solutions are first and foremost based on physics. Deciding factors are Pressure and Temperature as found on site.
2. Substitute something with Nothing – question any resource regarding its necessity for production.
3. Natural systems cascade nutrients, matter and energy – waste does not exist. Any by-product is the source for a new product.
4. Nature evolved from few species to a rich biodiversity. Wealth means diversity. Industrial standardization is the contrary.
5. Nature provides room for entrepreneurs who do more with less. Nature is contrary to monopolization.
6. Gravity is main source of energy, solar energy is the second renewable fuel.
7. Water is the primary solvent (no complex, chemical, toxic catalysts).
8. In nature the constant is change. Innovations take place in every moment.
9. Nature only works with what is locally available. Sustainable business evolves with respect not only for local resources, but also for culture and tradition.
10. Nature responds to basic needs and then evolves from sufficiency to abundance. The present economic model relies on scarcity as a basis for production and consumption.
11. Natural systems are non-linear.

12. In Nature everything is biodegradable – it is just a matter of time.
13. In natural systems everything is connected and evolving towards symbiosis.
14. In Nature water, air, and soil are the commons, free and abundant.
15. In Nature one process generates multiple benefits.
16. Natural systems share risks. Any risk is a motivator for innovations.
17. Nature is efficient. So sustainable business maximizes use of available material and energy, which reduces the unit price for the consumer.
18. Nature searches for the optimum for all involucrated elements.
19. In Nature negatives are converted into positives. Problems are opportunities.
20. Nature searches for economies of scope. One natural innovation carries various benefits for all.
21. Respond to basic needs with what you have, introducing innovations inspired by nature, generating multiple benefits, including jobs and social capital, offering more with less:  
This is the Blue Economy

(Blueeconomy.org)



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