

UBC Social Ecological Economic Development Studies (SEEDS) Student Report

The Sustainability of the UBC Food System Collaborative Project III

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The Sustainability of the UBC Food System
Collaborative Project III
AGSC 450 – Land, Food, and Community



Group #1

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Introduction

As consultants assessing the sustainability of the University of British Columbia Food System (UBCFS), we have been given the task of building upon the work of previous AGSC 450 students. Last year the class developed a research framework to assess the UBCFS in the broad terms of sustainability theory. Our group has decided to base our work on the sustainability model developed by Group 14 in 2003. We aim to build on this model to develop a framework to assess the sustainability of a particular subsystem, the UBC Food Co-op. By assessing the sustainability of the UBC Food Co-op, our hope is to develop recommendations to facilitate change in this subsystem that will enhance its contribution to the sustainability of the whole UBC Food System.

Our group has chosen to work on five of the specific tasks as outlined in *The Sustainability of the UBC Food System Collaborative Project III* (Rojas & Wagner, 2004).

We intend to:

- Document the opening of the new grocery outlet in the SUB
- Explore potential positive contributions as well as challenges to the sustainability of UBC's current food system that could arise from the new Food Co-op
- Assess the challenges and potential for the development of a student-run cooperative business
- Propose a detailed, well-informed plan for how a student-run cooperative grocery outlet could fit into the Faculty of Agricultural Science's curriculum and core values.
- Design a market survey instrument to determine the level of consumer interest, awareness, and needs

We will explore the first three tasks in order to provide sufficient background information for a thorough investigation of the fourth task. After meeting with the Food Co-op executive, we decided to focus on the fourth task because we were able to identify a large gap, and a huge opportunity, for collaboration between the Faculty of Agricultural Sciences and the Food Co-op. We will apply the framework of sustainability to the Food Co-op and identify how collaboration with the Faculty of Agricultural Sciences will enhance that sustainability.

In addition, as a useful tool for the Food Co-op, we will develop a research design to assess the consumer interest in an alternative SUB grocery outlet. Originally, this task was designed as a precursor to the opening of the grocery outlet to assess whether or not it would be popular. Since the outlet is already open, we have designed a market survey to assess consumer awareness and interest in the kinds of products carried by the Food Co-op.

Model Foundation

Our group chose to base our work on Group 14's model of sustainability (2003). Group 14 provided a well-researched and clearly-defined vision of both a sustainable and an unsustainable UBCFS. The group developed a thorough framework for assessing the progress of the UBCFS toward their vision. Their presentation was organized and laid out in a logical and professional manner, which enabled the reader to follow their visioning process and to comprehend their rationale. Their conclusions reflected the values held by the group and they maintained a balance between the three aspects of sustainability. Our group imagines a sustainable UBCFS to look much like the vision presented by Group 14 in 2003. Their paper provided us with a solid foundation upon which to base our investigation of the UBC Food Co-op.

Definition of Sustainability

Our definition of sustainability is in accordance with the 2003 working Group 14. As they state,

“Sustainability may be thought of as having three unique aspects: an ecological aspect, a social aspect, and an economic aspect. Each aspect may be looked at separately, but ultimately the three must be viewed together. They do not operate in isolation. They are interdependent and interconnected. Each contributes significantly to sustainability as a whole.” (Group 14, 2003)

This definition is complete and consistent with our view and will provide us with a basis for our project.

Value Assumptions

As a group we have decided to approach this project from a weak-anthropocentric viewpoint. However, in our discussion it was clear that our individual values run along a continuum that ranges from a stronger anthropocentric to a mildly ecocentric perspective. As Group 14 states, “the health of the community is determined not only by the health of its human population, but also by the health of the surrounding environment.” Our group shares the view that there needs to be a balance between the human and environmental elements of a system.

Indicator Criteria

The criteria outlined by Group 14 encompass all that we believe to be important to ensure that indicators are effective tools for assessing the sustainability of a system.

“[Group 14 feels] that sustainability indicators should be easy to understand, apply, and interpret, as well as relevant and communicable. They should be useable year after year in order to provide a long term view of sustainability. They should also highlight linkages and be used in

concert with one another. They should make use of data that are accessible and reliable. They should measure progress, explain sustainability, educate communities, motivate people, and focus action” (Group 14, 2003).

However, we do not feel that Group 14’s choice of indicators fulfilled all of these criteria. We found their ecological indicator, food miles, had a good foundation and rationale but lacked proper methodology to apply it to the UBCFS. Group 14 proposed to only measure produce because other products, such as bread, contain many different ingredients from numerous places and thus the food miles would be very difficult to measure (Group 14, 2003). However, our group feels that produce is only a small percentage of total food sold at UBC and therefore would not be an accurate representation of the whole system. In addition, Group 14 does not quantify the ideal sustainable distance that food should travel. Therefore, according to Group 14’s method of measurement, food miles are difficult to understand, apply, and are not relevant to the UBCFS. However, our group feels that the ‘food miles’ concept is a useful tool for visualizing the re-localization of the food system.

Group 14 chose the awareness of nutritious foods among students as their social indicator. They describe very detailed and well-defined research methodology. We agree that awareness is a good indicator of social sustainability; however, ultimately the level of awareness of nutritious foods gives little indication of the number of students whose actions reflect this awareness. This indicator is the first step towards assessing the social sustainability of the UBCFS. In upcoming years it will be necessary to develop indicators regarding the level at which awareness is translated into action.

The final indicator in the 2003 model is the affordability of food. This economic indicator measures the percentage of UBC residents’ income spent on deemed nutritious

food and on the total amount of food over a defined period of time. The parameters of this indicator are well-defined and could be used effectively to assess the consumer's willingness to pay for nutritious food. This indicator could be improved by developing a method for defining what nutritious food is. Group 18's indicator, which measures the deviance of calorie ratios of the three macronutrients in campus food, compared to the recommended National Research Council ratios, could be combined with this indicator to make it complete. Also, measuring the amount of money spent on nutritious food compared to the total amount spent on food does not reflect the affordability of nutritious food. Rather, it may indicate that a person does choose to purchase nutritious food.

Overall, Group 14 provides an adequate framework for its sample indicators. These indicators can be used as a basis for more refined research indicators. The next step for our group is to build upon Group 14's research design to develop tangible, measurable indicators to assess our subsystem, the UBC Food Co-op.

Our Vision of a Sustainable UBC Food Co-op

Our vision of a sustainable UBC Food Co-op encompasses a number of important characteristics. In order for it to contribute to the sustainability of the UBCFS, it must first be sustainable as its own subsystem.

To begin, we envision the UBC Food Co-op as a valuable resource for education and community outreach surrounding food issues. A sustainable UBC Food Co-op would provide the community with information and resources about organic and fair-trade food, student-run co-operatives (i.e. how to start your own), and seasonal diets. They would also offer a challenging and exciting working environment for students to gain leadership and employment skills. The UBC Food Co-op would lead by example in business ethics and

global citizenship. Ideally the UBC Food Co-op would act as a meeting place for like-minded students to explore global issues and act on their ideas.

Next, the UBC Food Co-op would make sustainable foods available to the entire UBC community at affordable prices. By doing so, Co-op members will create a self-sufficient co-operative business that can offer fair wages, rewards for volunteers, and contribute profits to community programs. As a global citizen, the UBC Food Co-op would develop connections with other UBCFS stakeholders. The Co-op would be integrated with a variety of UBC Faculties and community groups, such as the UBC Farm. It would emphasize local sourcing of its products and liaise with local farmers to provide consumers with a variety of products. As a sustainable business, the Co-op would be economically self-sufficient, and would not rely on external subsidies. It would develop partnerships with a variety of buyers such as student committees, making it less reliant on store-front sales.

Definition of a Co-operative

A co-operative is an "autonomous association of persons, united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise" (The International Co-Operative Alliance, 2004)

What kind of Co-operative is the Food Co-op?

The UBC Food Co-op is a consumer co-operative. This is a group of people who pool their resources to enable access to the benefits of economies of scale. They make purchases in bulk, allowing for savings per unit costs. They provide both products and services for the community.

History of the UBC Food Co-op

The UBC Food Co-op was started in 1998 by a small group of friends who decided to buy vegetables together and share the cost. They were able to obtain the vegetables at a lower cost and come together to share the food at a potluck. This co-op grew and the group began to include other friends. In 2000, when the co-op had grown to approximately 50 people, its home base was a portable behind the MacMillan Building at Main Mall and Agronomy Road. At this stage, members would order vegetables by computer from home and pick up their orders. Problems arose because all orders were done via an honour system where people were not required to pay at the time of ordering. The result was that orders were often not paid for or picked up. The system began to break down because the Co-op had grown to a point where members were not known to one another. In addition, there was also a problem with security as there was only a small lock on the portable.

In April 2002, Alice Miro, an Integrated Science student who studies Ecology and Geography, became president of the Food Co-op. Alice had a vision to spread the idea and knowledge of organic and fair-trade food to the rest of campus. She began as president with the mindset of expansion. The vision for the Food Co-op began making the transition from being based on a social and cultural mentality to being based on the expansion of services and education for the UBC community. Throughout her first year as president, she dealt with the struggles of the honour system that came about through the computer order-system and location. In April 2003, the Food Co-op was asked to move from the portable. Alice approached Josh Bowman, VP Administration, and was able to secure a place for the Co-op in the basement of the SUB.

Before the co-op was able to open its storefront in the SUB, members held a market in the main level of the SUB. The first market was held on Sept. 23, 2003. In November 2003 the storefront was open twice to members but meanwhile it was simply used as a storage area. On January 23, 2004 the Food Co-op officially opened its storefront and it was open for 2 hrs each weekday. It grew to 300 members in just over 2 months, with 30 volunteers helping to run the storefront. Continuing with its vision for expansion, the Food Co-op plans to renovate its space over the summer of 2004 and re-open in the fall as a full-service grocery outlet.

Implications of Student-Run Co-operative Governance for the Food Co-op

Co-operative governance is based on the principles of self-help, self-responsibility, democracy, equity, and solidarity (International Cooperative Alliance (ICA), 2004). It is based on the values of honesty, openness, social responsibility, and caring for others (see Appendix III). These principles and values have many implications for a student-run business and will contribute to the social, economic, and environmental sustainability of the UBC Food System.

Potential of a student-run co-operative business:

- Education for the community
- Community participation
- Democratic student control
- Equitable access
- Access to affordable products and services
- Provision of additional services (workshops, information, i.e. seasonal diet recipes)

Challenges of a student-run co-operative business:

- Limited financial resources for start-up within the Alma Mater Society's structure
- High level of responsibility/accountability for a student group to take on
- Slower decision making
- Economic difficulties of achieving actual economies of scale

- High turnover rate in leadership
- Dependency on volunteerism
- Dependency on shared values

Contributions and Challenges to the sustainability of the UBC Food System

The introduction of a full-service on-campus natural foods cooperative grocery outlet will contribute to, as well as challenge, the sustainability of the current UBCFS. The assessment of the various impacts can be broken down into the three categories of sustainability: environmental, economic, and social.

Table 1

	Contributions	Challenges
Environmental	- Reduced packaging (bulk sales) - Sale of organic produce - Reduced food miles (local products)	-Fair trade products increase food miles
Economic	-Reduces cost of food for consumers -self-sufficient	-Requirement of financial support for start-up -Competition with AMS Food & Beverage Services
Social	-Co-operative -Stimulates awareness of sustainability issues -Increases food security through variety, availability, and affordability	-Potential creation of tension between food service stakeholders (competition, policies, space, advertising)

Sustainability Indicators of the UBC Food Co-op Subsystem

The assessment of the sustainability of the UBC food system involves the use of the three categories of sustainability: environment, economic, and social. By choosing two indicators for each of the sustainability categories, all three categories will be addressed equally. For a detailed description of our indicators and methodology, please refer to Appendix I.

Ecological

The first indicator we chose is the **degree of localization of food products sold at the UBC Food Co-op**. The goal of our group is to reduce out of province imports and concurrently help support the local economy; therefore, we define 'local' products as products produced in British Columbia. We believe this is a feasible solution due to the wide variety of agricultural production systems in British Columbia. One of the benefits of re-localization is reducing the distance that food has to travel. This will help to curb environmental degradation such as air pollution from exhaust and the depletion of fossil fuels. The second indicator is the reduction of waste from packaged goods. Our goal is to buy a larger proportion of bulk goods and accept only those goods that are sent in recyclable or reusable material. Additionally the recyclable or reusable should be recycled and/or reused.

Economic

The food cooperative must be financially self-sufficient and not carry and debts. They must be able to make enough money from their business so that they do not have to rely on subsidies, grants, subsidies, or *donations*. The Food Co-op should be a non-profit organization therefore if any profit is made it should be re-invested in Food Co-op initiatives. In order to entice more students to buy goods within the cooperative the cost of the goods on campus must be less than or equal to that of competitors off campus.

Social

A strong cooperative business requires a stable base of volunteers that have a consistent number of working hours over a period of time. If there is a stable workforce the cooperative itself will become more stable. The importance of consumer awareness of the

Food Co-op is two-fold. First, consumers must be aware of the existence of the cooperative. Second, consumers must be educated about fair trade and organic goods, as the provision of these goods is a core value of the Food Co-op.

Market Survey Development

To address our final task, our group developed a market survey that aims to provide the Food Co-op with useful information about the UBC community. The questionnaire assesses the level of consumer interest, knowledge and need.

The questions primarily address:

Who shops at the Food Co-op?

Why do people shop or not shop at the Food Co-op?

What items do people purchase/would they like to purchase at the Food Co-op?

We followed several of the guidelines of making an effective survey which are outlined in Carter McNamara's PhD "Basics of Developing Questionnaires" (2004) including:

- Use easy to understand language
- Avoid using strong adjectives
- Begin with easy to answer questions about demographics, then move on to opinion based questions
- Include multiple choice answers that encompass a total range of answers
- Keep the survey short
- Ask for additional commentary
- Test the survey on a small group to find out if it is easy to follow

Partnership Opportunities for the Faculty of Agricultural Sciences with the UBC Food Co-op

The mission of the Faculty of Agricultural Sciences is to "[Develop] life-long learners to create knowledge to make land, food, and community healthy and sustainable." The UBC Food Co-op contributes to this mission in a number of ways. It provides an opportunity for students to gain hands-on experience in small business management. It also

engages the UBC community in the issues surrounding food security and the environmental impact of our food system.

Meeting with the UBC Food Co-op executive, our group recognized many ways in which collaboration between the two groups could be mutually beneficial. We have compiled a list of potential partnerships which we feel would contribute to the overall sustainability of the UBC Food System.

Curriculum Integration

- Have the Food Co-op as an option for the mandatory volunteer hours for AGSC 100 students
- Expand the awareness of the Food Co-op via posters and marketing presentations through GRS 290/390/490 mandatory community projects.
- Have the Food Co-op as an option for the FRE 302 business plan term project.
- Supply food items for FNH 341 Food Theory Applications Food Laboratory.
- Have the FNH 403 students create a manual, including Hazard Analysis Critical Control Points (HACCP) and Standard Operating Procedures (SOP's), to be used by volunteers to study food safety. Additionally, students could create a food safety test that all volunteers and staff at the Food Co-op must pass within the first month of their employment.
- Continue to expand upon the current Food Co-op case study with future AGSC 450 groups
- Have an assignment within FNH courses that asks students to develop recipes that emphasize seasonal diets.

Community Development

- Develop a tri-mentoring triad in which a junior agricultural student and a senior member of the Food Co-op partner with a professor in AGSC to explore opportunities to further the Food Co-op.
- Create a liaison position within the AGUS and the Food Co-op executives whose sole purpose is to maximize the mutual benefits of cooperation between the two organizations.

- Supply the produce and dry goods for the Agricultural Undergraduate Society (AGUS) Wednesday night Barbeque, Community Dinner, and other related functions.
- Supply food to Agora in the form of coffee, confectionaries, baking supplies, and eventually produce for sandwiches and salads.
- UBC farm and Food Co-op should collaborate to make their products available at each location. This helps to address the seasonality of their operations. (i.e. Food Co-op is a winter operation/ UBC Farm is a summer operation).

Conclusion

Our vision for the UBC Food System has been based upon Group 14's sound three-pillar model. Throughout the paper we have applied their vision of sustainability to our scenario, the Food Co-op. Based on their model we were able to develop indicators that would not only be easy to understand and apply, but that would also be relevant and communicable.

Through investigating the history, challenges, and opportunities of the Food Co-op, we were able to identify areas in which the Co-op could be strengthened and ways in which it could be improved in the future. To address these issues we focused on the Faculty of Agricultural Sciences as a strong resource which we believe, when tapped, could enable the Food Co-op to become sustainable while contributing to the sustainability of the whole UBC Food System. By integrating the Food Co-op into the curriculum and community development initiatives within the Faculty of Agricultural Sciences, it will act as a leader and example for future partnerships between the Food Co-op and other faculties and community groups. It is our hope that through these partnerships, the Co-op can fulfill its

goal of raising awareness and understanding of fair trade and organic foods as well as becoming an educational centre for student-run initiatives and co-operatives.

Appendix I:

Sustainability Categories	Sustainability Indicator	Explanation of Indicator	Method of Measurement
ECONOMIC	SELF SUFFICIENCY	<ul style="list-style-type: none"> - Will reach sustainability when 100% of net revenue is reinvested in the company, there is zero reliance on subsidies, all debts are paid off, and staff is receiving a fair wage. (All debts should be recovered as soon as possible). -Unsustainable—exhibits any of the following characteristics: dependant on subsidies, no money being reinvested, debt. 	<ul style="list-style-type: none"> -Measure on a yearly basis -Use enterprise budget to make sure that revenue is covering costs. -If profit is being made it should be reinvested in Food Co-op initiatives.
	PRICE ON AND OFF CAMPUS	<ul style="list-style-type: none"> -Products should be equivalent if not cheaper than off campus (in accordance with a co-operative business philosophy). -If the prices of all the Food Co-op products are more expensive than the equivalent off-campus products then the Food Co-op is 0% sustainable. -If the prices of all the Food Co-op products are equal to or cheaper than the equivalent off-campus products then the Food Co-op is 100% sustainable. 	<ul style="list-style-type: none"> -Take name brand products sold on and off campus and compare them. 1. Price a minimum of 10 items sold at the Food Co-op. 2. Choose a minimum of 5 off-campus locations and price the same 10 items. 3. Calculate the off-campus average price for each item 4. Compare the off-campus averages to the Food Co-op price. 5. Count the number of on-campus items whose price is equal to or less-than off campus. <p>*NOTE: see Appendix IV.</p>
ECOLOGICAL	LOCALIZATION	<ul style="list-style-type: none"> - The Food Co-op is sustainable if every item that is sold by the Food Co-op, that could be produced locally, is purchased by the co-op from a local source. 	<ul style="list-style-type: none"> -Number of items sold at the food coop that could be purchased from a local source, compared to the number of items sold by the Food Co-op. *NOTE: 1 item = 1 type of produce (ex. Strawberries). *NOTE: if item is out of season it no longer counts as 'local'.

	WASTE	<p>-The system is sustainable when all products come in recyclable or reusable packaging. In addition, this packaging must also be reused and/or recycled.</p> <p>-The system is unsustainable when none of the packaging is reusable and/or recyclable.</p>	<p>- % of the items the Food Co-op carries that come in reusable or recyclable packaging.</p> <p>-The number of those packages that are actually recycled or reused.</p> <ol style="list-style-type: none"> 1. Once a month have the manager randomly examine the waste. 2. Record any recyclable or reusable packaging in the waste bin. <p>*NOTE: If there is, the Co-op is unsustainable. If there is not, then it is sustainable.</p>
SOCIAL	STAFF/VOLUNTEER TURN-OVER/ WORK LOAD	<p>-Sustainable would mean there are many volunteers with short hours and stable terms.</p> <p>-Unsustainable would be few volunteers with long hours and high probability of quitting.</p>	<p>-Measure the # of volunteers/term</p> <p>-Measure the # of hours/volunteer/term</p> <p>*NOTE: Collected via volunteer timesheet (see Appendix V)</p>
	AWARENESS- UNDERSTANDING ACTION	<p>- The Food Co-op is socially sustainable when all members of the community are aware of and understand the values and goals of the Food Co-op. With respect to action, the Co-op is sustainable when more people are purchasing items from the Food Co-op relative to the term before.</p>	<p>-Measure with data collection survey.</p> <p>*NOTE: See Appendix II.</p>

Appendix II: Consumer Awareness/Action Survey – UBC Food Co-op

Personal Information

Faculty_____ Major_____ Year____ Do you live on-Campus? Yes / No

Please read the following questions and circle the appropriate response.

1. Do you understand the concept of fair-trade?

Yes No

If you answered yes, does this understanding influence your shopping habits?

Yes No

2. Have you heard of the UBC Food Co-op?

Yes No

3. Do you know where the UBC Food Co-op is located?

Yes No

4. Have you ever purchased an item from the UBC Food Co-op?

Yes No

If you answer no, proceed to question 6.

5. I have purchased an item from the Food Co-op...

within the last week

within the last month

within the last year

Please proceed to question 7

6. I have not purchased an item from the Co-op because of....

Please circle all that apply (End of survey)

a. price

b. convenience

c. product preferences

d. location

e. other, please specify_____

7. What is your reason for shopping at the Food Co-op?

Please circle all that apply

a. price

b. convenience

c. product preferences

d. location

e. fair trade/organic products

f. other, please specify_____

8. What types of food do you normally purchase from the Food Co-op?

Please circle all that apply

a. Bulk goods

b. Produce

c. Tea/coffee/chocolate

d. Gifts

Appendix III: Seven Principles of Co-operative Governance (International Co-operative Alliance, 2004)

<p>1st Principle: Voluntary And Open Membership</p>	<p>Co-operatives are voluntary organizations, open to all persons able to use their services and willing to accept the responsibilities of membership, without gender, social, racial, political, or religious discrimination.</p>
<p>2nd Principle: Democratic Member Control</p>	<p>Co-operatives are democratic organizations controlled by their members, who actively participate in setting their policies and making decisions. Men and women serving as elected representatives are accountable to the membership. In primary co-operatives members have equal voting rights (one member, one vote) and co-operatives at other levels are organized in a democratic manner.</p>
<p>3rd Principle: Member Economic Participation</p>	<p>Members contribute equitably to, and democratically control, the capital of their co-operative. At least part of that capital is usually the common property of the co-operative. They usually receive limited compensation, if any, on capital subscribed as a condition of membership. Members allocate surpluses for any or all of the following purposes: developing the co-operative, possibly by setting up reserves, part of which at least would be indivisible; benefiting members in proportion to their transactions with the co-operative; and supporting other activities approved by the membership.</p>
<p>4th Principle: Autonomy And Independence</p>	<p>Co-operatives are autonomous, self-help organizations controlled by their members. If they enter into agreements with other organizations, including governments, or raise capital from external sources, they do so on terms that ensure democratic control by their members and maintain their co-operative autonomy.</p>
<p>5th Principle: Education, Training And Information</p>	<p>Co-operatives provide education and training for their members, elected representatives, managers, and employees so they can contribute effectively to the development of their co-operatives. They inform the general public - particularly young people and opinion leaders - about the nature and benefits of co-operation.</p>
<p>6th Principle: Co-Operation Among Co-Operatives</p>	<p>Co-operatives serve their members most effectively and strengthen the co-operative movement by working together through local, national, regional, and international structures.</p>

7th Principle: Concern For Community	While focusing on member needs, co-operatives work for the sustainable development of their communities through policies accepted by their members. Adopted in Manchester (UK) 23 September 1995

Appendix IV

Product	Off-Campus Store 1 Price	Off-Campus Store 2 Price	Off-Campus Store 3 Price	Off-Campus Store 4 Price	Off-Campus Store 5 Price	Average Price

Product	Food Co-op Price	Average Off-Campus Price	Is Food Co-op Price higher cheaper?
			<input type="checkbox"/> Yes
		Total Marked Yes	
		Percent Marked Yes	

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