

UBC Social Ecological Economic Development Studies (SEEDS) Student Report

The UBC Food System Project (UBCFSP): Summary Report 2006

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AGSC 450

September 11, 2006

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The UBC Food Systems Project is a collaborative Community Based Action Research Project initiated jointly between the Faculty of Land and Food Systems and Social Ecological Economic Development Studies (SEEDS) program of the UBC Sustainability Office (SO). Key project partners include: Faculty of Land and Food Systems (students and teaching team of AGSC 450 class), UBC Food Services, UBC Alma Mater Society Food and Beverage Department, UBC Waste Management, UBC Sage Bistro, Centre for Sustainable Food Systems at UBC Farm, SEEDS, SO, UBC Campus and Community Planning and project collaborators include the Sauder School of Business.

The author of this report, Liska Richer, is a PhD. Candidate in the Faculty of Land and Food Systems and a veteran Teaching Assistant in AGSC 450. She was hired by the UBC Sustainability Office to work with the above UBCFSP members, namely to (1) Synthesize the findings of 2006 AGSC 450 students, (2) Organize a workshop with UBCFSP partners, collaborators and other key food system actors to share findings from student's projects and to gather feedback and input for the next iteration of AGSC 450 in 2007, and (3) Work with UBCFSP partners and collaborators to plan and ideally implement food system related initiatives.

EXECUTIVE SUMMARY

General Overview

The UBC Food System Project (UBCFSP) is a collaborative, community-based action research project initiated jointly in 2001 between the Faculty of Land and Food Systems and the Sustainability Office's Social Ecological Economic Development Studies Program (SEEDS). The Project involves multiple partners and collaborators, including: UBC Food Services (UBCFS), AMS Food and Beverage Department (AMSFBD), UBC Waste Management (UBCWMM), Centre for Sustainable Food Systems at UBC Farm, UBC Sage Bistro, UBC Campus and Community Planning (CCP), Sauder School of Business classes, UBC Sustainability Office (SO), Social, Economic, Ecological Development Studies (SEEDS), and the Faculty of Land and Food Systems students and teaching team.

The UBCFSP is part of an Agricultural Science 450 Land, Food and Community (LFC) III course, a mandatory capstone course required for all 4th year Faculty of Land and Food System students. The Project commenced five years ago and has involved six generations of AGSC 450 students, 767 students (105 AGSC 450 groups and 3 Sauder School of Business and 1 Global Resource Systems student group) in total.

The main goals of the UBCFSP are the following:

1. To conduct a UBC food system sustainability assessment.
2. To create a *shared* vision and a model among partners and collaborators of a sustainable food system.
3. To identify barriers that impinge on the ability to make transitions towards UBC food system sustainability.
4. To develop opportunities and recommendations to UBCFSP partners and collaborators.
5. To *implement* measures to make transitions towards UBC food system sustainability.
6. To give students opportunities to apply all learning from their program specialization and the Land, Food and Community (LFC) series in a transdisciplinary real life project.

So far, some of the **key accomplishments** of the Project have included:

- Consensus building among Project partners on the following issues: nature of problems in our food system, the vision of what a sustainable UBC food system looks like (encapsulated in our agreed-upon Vision Statement for A Sustainable UBC Food System); the model of transition to sustainability ('how we should get there'); specific strategies to address obstacles and to facilitate transitions towards a *more* sustainable UBC food system.
- Building a truly collaborative process based upon mutual respect and enthusiasm among project participants.
- Linking teaching, learning, research, community and action together in the classroom.
- Improving our students, as well as teaching team and project partners' skills to understand sustainability issues challenging our food systems.
- Increasing our students and teaching team's ability to understand and propose food system sustainability initiatives, as well as, to develop recommendations regarding food system sustainability initiatives with UBC food system actors.
- Designing and implementing various food system sustainability initiatives on campus.
- Conducting a campus wide food system sustainability assessment.
- Producing 109 UBCFSP student reports, 109 presentations and five summary of findings reports.

This Year at a Glance

2006 marked the fifth year of the UBCFSP. Based upon the findings of Years one to four, student groups in the winter 2006 term were expected to work on one of seven scenarios. Based upon their assigned scenario, groups were asked to: (1) Provide reflections on our Vision Statement which outlines principles that should guide our transition towards a sustainable UBC food system; (2) Provide reflections and expand if necessary the problem statement assigned to them in the description of their scenario; (3) Develop and refine proposed research designs, campaigns, and action plans from previous years; (4) Either engage in actual data collection and/or develop detailed action plans for implementation in 2006 and 2007, and (5) Provide recommendations for the next steps to appropriate Project partners and collaborators, as well as other relevant food system actors.

This paper is a summary of the work of 194 students, working in 28 groups, on one of seven scenarios. The purpose of this paper is to integrate and summarize their findings and recommendations, prepare the groundwork for Year six, and facilitate initiatives among the UBCFSP partners and collaborators.

Key Findings

Vision Statement:

Overall, the majority of groups felt that the established "Vision Statement for a Sustainable UBC Food System" resonated well with their own vision of a sustainable UBC food system.

Specific Findings: 2006 Winter Groups

Scenario 1: Extending Local Food Purchasing (Groups 15, 16, 19, 28)

- Four groups investigated potential forms of collaboration among local food producers, retailers and the role for the UBC Farm to facilitate the creation of a network to provide local and ideally sustainability produced food products to the UBC community.

Summary of Central Findings:

Potential Forms of Collaboration:

Group 19 2006:

1. Creating a UBC Farm Cooperative:

Objective:

- Explored the potential of creating a website that would serve as a tool to link AMSFBD, UBCFS and the UBC Farm with local BC producers.

Description:

- Proposed the development of a website, whereby local producers would be eligible for membership if they met specified parameters of quality, price, availability and distribution. Members would be able to post the following information: distribution capacities, farm location, types of available commodities, prices, volume and quality. Potential buyers, such as AMSFBD, and UBCFS could then log onto the site to browse, order and purchase products. Upon order requests, producers would drop off their order to UBC Farm for campus distribution.
- Although Group 19 contacted many potential local producers, only three of them responded. However, all three expressed interest in becoming a member to post commodity information to prospective buyers on campus.

2. Extending local produce availability through UBCFS and AMSFBD's current distributors:

- Found that UBCFS's current distributor, *Allied Foods*, and AMSFBD's current distributor, *Central Foods* expressed interest in accessing more local foods.
- Found that *Central Foods* indicated that they are purchasing as much local food as possible, but was unable to provide a list of their local producers because a sales representative indicated that "it all depends on what is available" (p.15).
- Found that *Allied Foods* is currently purchasing from 14 local food producers.

3. Creating a business relationship between Small Potatoes Urban Delivery (SPUD) and UBC food providers:

- SPUD is a Vancouver based company that purchases a large proportion of organic and local produce, transports and distributes orders to mostly residential homes. They have a user-friendly website for customers to place orders, and have the capacity to package items as well.
- Found that SPUD is currently investigating the possibility of expanding its current residential delivery services to corporate deliveries, beginning with Simon Fraser University (SFU) and University of British Columbia (UBC). Unfortunately, SPUD presented this potential opportunity for collaboration with UBC food providers to Group 19 very late in their research, so they were unable to explore this opportunity in any further detail.

Group 28 2006:

1. Creating a full-fledged Farmer's Market at UBC Farm:

Objective:

- To explore the possibility of Your Local Farmers Market Society (YLFMS) run a full-fledged farmer's market at the UBC Farm.

Description:

- Your Local Farmers Market Society (YLFMS) was established in 1995, and is a Vancouver based non-profit organization dedicated to running farmers markets within Vancouver. Currently they run "three annual summer markets: Trout Lake in East Vancouver, Nat Bailey Stadium in Riley Park, and Nelson Park in the West End...and a winter market at Heritage Hall on Main Street" (p.14). YLFMS currently has about 75 producers who sell at their markets, and they "charge tabling fees to the vendors of \$35-\$50 per stall per day, and an annual registration fee of \$30" (p.15).
- Found that the UBC Farm was approached by YLFMS a few years ago with a proposal to use the farm as a location for a market, but the Farm was not growing produce for sale at this time and thus was not prepared to make a commitment. Since then there has been a change in Farm staff and now the Farm holds weekly Saturday Markets. However, it was found that "there has been no further inquiry by YLFMS regarding the use of the farm for a new market", although "through correspondence with staff at YLFMS, we learned that there is a considerable consumer demand to be fulfilled for the presence of a new market near the Kitsilano/Point Grey area of Vancouver" (p.15).
- Developed two detailed preliminary proposals, one to the UBC Farm and another to YLFMS regarding a full-fledged weekly UBC Farmers' Market, to be approved and edited by the UBC Farm and the YLFMS and submitted to the respective parties.

Scenario 2: Incorporating Seasonal BC Food Items into Campus Food Provider Menus (Groups 3, 6, 8, 13, 23)

- Five groups explored and proposed ways that more BC seasonal food items (especially root vegetables), and a selection of sustainably produced foods (i.e. free-range eggs and chicken) can be incorporated into existing campus menus at a selection of campus food outlets. These food outlets included: *99 Chairs*, *Vanier's Dining Room*, *Totem Park Dining*

Room, Café Perugia, The Barn Coffee Shop, Pie R Squared, and/or Bernoulli's Bagels. Depending on the complexity of these tasks, groups were given the opportunity to investigate and propose ways that the UBC Farm can overcome summer labour shortages, as well as investigate the feasibility of constructing a root cellar at the UBC Farm.

Summary of Central Findings:

UBC Food Outlet Case Studies: Proposed Ways to Incorporate more BC Seasonal and a Selection of Food Products from Socially and Ecologically Conscious Producers

Group 3 2006: Bernoulli's Bagels

- Proposed ways that *Bernoulli's Bagels* can integrate more local, seasonal and a selection of free-range products from UBC Farm into their menu.
- Created recipes, which 7 group members taste-tested, along with pictures for ten bagel sandwiches and two vegetable dishes that feature UBC Farm produce and free-range eggs. Each menu item contains at least one ingredient from the UBC Farm.
- Suggested that freshly squeezed fruit and vegetable juices be made with UBC Farm produce, such as strawberries and wine grapes, which could be offered by season at *Bernoulli's Bagels*.
- Proposed that the UBC Farm logo be placed next to each menu item or ingredient (using a magnet or Velcro) derived from the Farm to increase awareness of BC seasonal foods, and to enhance the ability for consumers to consciously purchase these foods. Proposed that these menu items be advertised as "Farm Fresh Specials" or "Fresh from the Farm".

Group 6 2006: Café Perugia and 99 Chairs

- Proposed ways that *Café Perugia* and *99 Chairs* can integrate more local, seasonal and a selection of free-range products into their menus.
- Developed a recipe bank consisting of salads, soups, pot pies and dessert pies containing local and seasonal vegetables, particularly root vegetables to be implemented at *99 Chairs* and *Café Perugia*.
- Developed a weekly menu plan for *Café Perugia* consisting of items from their recipe bank.
- Proposed that *Café Perugia* incorporate their local and seasonal recipe bank for salads, wraps, pot pies and dessert pies into their menu, at the start of the fall academic term.
- Proposed that *99 Chairs* incorporate their local and seasonal recipe bank, using vegetables from the UBC Farm, such as carrots, kale, beets, squash and cabbage for soups into their menu. Proposed that they offer these items in a trial period, such as a daily special, and advertise the items as a local BC choice for lunch or dinner at a fair cost.
- Proposed that *99 Chairs* offer the option of free-range eggs into a breakfast item, and offer it at a slightly higher cost of 50 cents more than conventional egg breakfasts.
- Proposed that *99 Chairs* offer a trial run of a free-range chicken burger for lunch at a slightly higher cost than the conventional burger, and that it be advertised on a specialty board.

Group 8 2006: The Barn Coffee Shop

- Proposed ways that *The Barn Coffee Shop* can integrate more local, seasonal and a selection of free-range products into their menus.
- Developed and proposed a series of three creative menus each characterizing different seasonal ranges (*April-June, July-September, and October-March*), which included a selection of local BC free-range eggs and chicken and wild salmon.
- Developed a corresponding cooking information guide for each recipe.
- Developed a nutritional analysis for each proposed menu item to be provided along with the menus to customers, with the hope that customers will be more supportive of the menu changes when they can learn about the direct health benefits.
- Developed a series of three scenarios for the integration of their proposed menu items, ranging from "easy" to "sky's the limit".

Group 13 2006: Pie R Squared (PRS)

- Proposed ways that the UBC Farm can supply produce for two seasonal pizzas to be prepared and sold at *Pie R Squared (PRS)*.
- Developed a model that can be applied to other food outlets both on and off campus to incorporate seasonal and local produce into menus.
- The group sampled two pizzas among their 7 group members, to PRS staff and customers, and received over 149 responses. Based upon interviews and taste-test results it was found that the sour-cream based squash and rosemary pizza was preferred.
- It was tentatively agreed that the sour cream base pizza be implemented at PRS, with a contract for planting the required ingredients for the spring and implementation in the fall. A directed studies student also worked on the contract and estimated costs and growing requirements during the summer of 2006. It was found that the UBC Farm would be unable to meet the quantity needs to implement the pizza at PRS this fall, due to change of staff, and unanticipated difficulties with growing the squash. However, it is likely that the UBC Farm will be able to meet the quantities needed next season, and ideally the pizza will be implemented at PRS in September 2007.

Group 23 2006: *Place Vanier* and *Totem Park* residence cafeterias

- Proposed ways that ***Place Vanier*** and ***Totem Park*** residence cafeterias can integrate more local and seasonal products into their cafeteria menus.
- 1. Designed a local/seasonal food theme night to be held at *Place Vanier* and *Totem Park*, to increase awareness of local and seasonal foods, and support for the UBC Farm, with the overall objective to help trigger support for local/seasonal menu changes, and facilitate general local/seasonal food initiatives at *Totem* and *Vanier* residences. Proposed that the event be held on October 16, 2006 – World Food Day. Designed a 3-course menu, using ingredients typical for the month of October and available from the UBC Farm, and if they can not be obtained in sufficient quantities here, then from other local BC producers. Also designed a corresponding information night, where the group contacted and received confirmation from a list of local guest speakers, who would share their areas of food system sustainability initiatives and knowledge to the dinner attendees.
- 2. Proposed a long-term project – the incorporation of local/seasonal foods in residence cafeteria menus. The Group found that some of the residence dishes simply stated “vegetables” versus specific items, and in turn they modified some of these dishes to contain ingredients that could be obtained in season. They developed a recipe bank containing local/seasonal produce for the months of September-October, November-February, and March-April. Proposed that a “local and seasonal” dish from Group 23’s recipe bank be implemented on either a daily or weekly basis at *Place Vanier* and *Totem Park*. Proposed that procurement practices at residences should initially change by switching produce items that are currently ordered in the greatest volume, to local and seasonal items.

UBC Farm: Feasibility for the Addition of a Root Cellar at UBC Farm

- Two groups (6 & 13) conducted a feasibility analysis of constructing a root cellar at UBC Farm.

Group 6 2006:

- Investigated the feasibility for UBC Farm to construct a root cellar in an effort to increase their ability to sell more off season vegetables to campus outlets. They developed a construction plan for a root cellar at UBC Farm, along with a general budget.

Group 13 2006:

- Developed a plan for the construction of a root cellar at UBC Farm to ideally increase their ability to supply campus food outlets with food products, especially carrots, beets, garlic, leeks, onions and squash throughout the academic year. They developed a construction plan for a root cellar at UBC Farm.

Scenario 3: Customer Support for a Local Food System and a Selection of Foods Produced from Ecologically and Socially Conscious Producers (Groups 4, 9, 20)

- Three groups developed and refined a research methodology to assess the level of desirability among UBC consumers to purchase local and a selection of foods produced from ecologically and socially conscious producers to be administered campus wide in the Fall of 2006.

Summary of Central Findings:

Proposed Methodologies:

Target Population	<ul style="list-style-type: none"> UBC food outlet consumers, including those at UBCFS, AMSFBD, private residences and UBC village outlets (Group 9, 20).
Data Collection Tools	<ul style="list-style-type: none"> Group 9 developed a 17 question mixed open and close-ended survey. The survey also contains: 1) a one-page cover letter where terminology used in the questionnaire is defined; 2) an informative piece on the benefits of purchasing local foods and foods produced from socially and ecologically conscious producers; and 3) coupons from donators. Group 20 developed a 12 question mixed open and close-ended survey. The survey also contains a short informative piece about the benefits of purchasing local foods and global foods.
Sampling Techniques (i.e. sample type, size)	<ul style="list-style-type: none"> Group 9 proposed that convenience quota sampling be conducted, where the target population is divided into demographic strata and are sampled according to convenience or judgment. Strata were determined according to revenue analysis of food outlet locations to determine the levels of customer activity. Proposed a sample size of approximately 1000 respondents. Group 20 proposed that stratified random sampling be conducted. This technique involves the target population being divided into two strata: 1) customers who eat meals at the residence cafeterias of <i>Place Vanier</i> and <i>Totem Park</i>, and 2) customers who do not eat meals at residence cafeterias. Proposed a sample size of approximately 400 respondents.
Methods of Administration	<ul style="list-style-type: none"> Group 9 proposed that face-to-face survey administration be conducted at 7 locations: <i>UBC Village, SUB, Sage Bistro, Trek Express, Totem Park Dining Room, Vanier Dining Room, and Gage Towers</i>. These locations represent 2/3rds of their selected target population. Group 20 proposed that half of face-to-face survey administration is conducted at <i>Place Vanier</i> and <i>Totem Park</i> residence cafeterias, and half to consumers at other UBC food outlets.

	<ul style="list-style-type: none"> Group 20 proposed 20 students in the 2006 fall AGSC 100 class is offered the opportunity to participate in survey administration as part of the course requirements for each student to complete community service hours. Each of these students would be required to complete 5 hours of volunteer work to administer 20 surveys. Proposed that a training session be conducted to train the AGSC 100 volunteer survey administrators based upon a page of instructions developed by the group to administer to the class. Group 9 proposed that students in the 2006 fall AGSC 100 class be offered the opportunity to participate in survey administration also as part of the course requirements for each student to complete community service hours. Proposed that a short presentation be given to the AGSC 100 class about the history of the UBCFSP, as well as give a brief lesson about how to successfully administer a survey based upon instructions developed by the group to administer to the class.
Timeline	<ul style="list-style-type: none"> Group 9 proposed that the survey be administered in October 2006 and analyzed in the Fall 2006. Group 20 proposed that the survey be administered in September 2006 and analyzed in Fall 2006.
Budget	<ul style="list-style-type: none"> Group 9 anticipated that the total cost for the administration of the survey would be \$400. Group 20 anticipated that the total cost for the administration of the survey would be \$93.16.

Scenario #4: Promoting Education and Awareness for Local Food Systems
(Groups 10, 12, 14, 22, 24)

- Five groups developed educational campaigns, including a set of educational pieces that would enhance the feasibility of re-localizing UBC's food system by increasing awareness about the benefits of local foods. Each group provided the detailed steps required for its implementation, such as where, when, with whom, how, and cost for the campaign.

Summary of Central Findings:

Group 10 2006: Proposed Educational Campaign

Campaign components	
Campaign Goals	<ul style="list-style-type: none"> To increase awareness, purchasing and consumption of local food among UBC consumers to 20% by the end of Food Week, by using educational tools and events to influence two population subgroups: consumers who are concerned about food, and consumers who view food merely as a means of sustenance.
Target Population	<ul style="list-style-type: none"> UBC consumers, including staff, faculty, students, and with a focus on students.
Time Frame	October 2-6 th , 2006: Local dinner event October 16-18 th , 2006: Food Week events
Location	Student Union Building (SUB) concourse: "Local Market" and "Local Food Scavenger Hunt" events. Student Union Building (SUB) ballroom: "Local Food Tasting Event".
Promotional Events	<ul style="list-style-type: none"> Proposed that a "Food Week" be held, consisting of the following components: <ol style="list-style-type: none"> "Mini local market": <u>Location:</u> SUB concourse. <ul style="list-style-type: none"> The <u>purpose</u> of the "mini local market" will be to increase connections between consumers and the food sources, and to provide support for local farms. <u>Description:</u> Proposed that booths be set up that display local produce, and prepared foods from local farms. Foods should be available for purchase. Proposed that a shuttle be available to conduct UBC Farm tours, where attendees can increase their familiarity with the processes of how food is grown, and help promote UBC Farm products. "Local Food Scavenger Hunt": <u>Location:</u> SUB concourse. <ul style="list-style-type: none"> <u>Description:</u> Proposed that a "local food scavenger hunt" be held to serve as an opportunity for attendees to learn about local foods and farms. Participants would be given clues to search for various local foods at outlets in the market. Once groups find the food item, they will be given an educational fact about that item. The winner of the hunt will be awarded a prize basket consisting of local products donated by local farmers and retailers. "Local Food Tasting Event": <u>Location:</u> SUB ballroom. <ul style="list-style-type: none"> <u>Description:</u> Proposed that a "local food tasting event" be held where UBC food outlets prepare local foods for participants, who purchase a \$5 dollar bracelet to sample them. UBC outlets will have the opportunity to advertise their services, as well as local farms supplying the food.
Promotional Tools	<ul style="list-style-type: none"> Designed the following promotional tools: slogan ("Eat Fresh, Buy Local"), logo, pamphlet, poster, website, price card.
Evaluation Tools	<ul style="list-style-type: none"> Proposed the use of a close-ended survey to measure the levels of consumer awareness about local foods. Proposed that this survey be administered prior and post "Food Week" activities.
Participants	<ul style="list-style-type: none"> Proposed that volunteers be recruited from AGSC 100 and 250 to be responsible for promoting the campaign and helping to set up and run events, as part of their course requirements.
Budget	<ul style="list-style-type: none"> Total expected net <i>profit</i>: \$1337.58

Group 12 2006: Proposed Educational Campaign

Campaign components	
Campaign Goals	<ul style="list-style-type: none"> To raise awareness about the benefits of local foods and to draw attention to local food options available on campus.
Target Population	<ul style="list-style-type: none"> UBC faculty, staff and students.
Time Frame	October 16 th , 2006 (World Food Day), 10-4pm: "Local Food Day"
Location	Student Union Building (SUB) concourse
Promotional Events	<ul style="list-style-type: none"> Proposed that a "Local Food Day" be held, consisting of the following components: <ul style="list-style-type: none"> <u>Description</u>: Local food sampling, and information sharing about the benefits of local foods. Group 12 also recommended that Group 14's proposed carnival like events (outlined below) be incorporated into this event as well. <u>Participants</u>: Tentative permission was obtained from local food organizations (Farm Folk/City Folk), the UBC Sustainability Office, UBC Farm, Sprouts, AMSFBD and UBCFS to participate in the one-day event.
Promotional Tools	<ul style="list-style-type: none"> Designed the following promotional tools: posters, pamphlet, table tents, MUG leader information sheet, dry erase poster ("Local Ingredients Available Today"), website, and two logos ("Buy BC" and "UBC Farm Logo").
Evaluation Tools	<ul style="list-style-type: none"> Developed a survey to be distributed in the SUB concourse during Local Food Day to gauge the effectiveness of the campaign in raising awareness of the benefits in consuming local foods.
Participants	<ul style="list-style-type: none"> Proposed that a work study program student be hired to implement the campaign under the guidance of the AGSC 450 teaching team. Proposed that the work study student be responsible for recruiting 30 volunteers from the AGSC 100 class to assist with the Local Food Day events.
Budget	<ul style="list-style-type: none"> Total expected cost: \$1, 754.03

Group 14 2006: Proposed Educational Campaign

Campaign components	
Campaign Goals	<ul style="list-style-type: none"> To target UBC consumers in order to increase awareness of local foods, and to facilitate interest regarding how purchasing local foods can benefit the economy, health and the environment.
Target Population	<ul style="list-style-type: none"> UBC food consumers, including staff, faculty and students.
Time Frame	October 16 th - 17 th , 2006, 11-2pm: "Local Food Fair"
Location	Outside of the Student Union Building (SUB) in the sunken cement plaza.
Promotional Events	<ul style="list-style-type: none"> Proposed that a "Local Food Fair" be held, consisting of the following components: <ol style="list-style-type: none"> 1. Information booth: <ul style="list-style-type: none"> Offering information contained in Group 14's pamphlet. Participants: Proposed that an AGSC 450 student, hired to coordinate the event man this station since he/she will best be able to answer questions and provide information about local foods. 2. Tables: <ul style="list-style-type: none"> Proposed that tables be set up by UBC Farm, Sprouts, and SEEDS to provide information about their organizations in relation to local foods. 3. Activity booths (4): <ol style="list-style-type: none"> a) Digital Picture Booth - "Wall of Fame": <ul style="list-style-type: none"> Proposed that a mascot (dressed as a local vegetable) take pictures of people holding a sign that says "I Support Local Food". Pictures can then be placed on a website (such as Group 22's proposed website) under a section entitled "Pledges to Support Local Food". Group 14 proposed this activity because according to social marketing principles by creating public commitment to something (i.e. pledge) this can help induce behavior changes. <u>Participants/resources</u>: Two volunteers will be needed – one to be the mascot, and one to take pictures; a handmade sign "I Support Local Food", a digital camera, and pamphlets. b) Map dartboard - "How Local Can You Throw?" <ul style="list-style-type: none"> Proposed that a large map of Canada be displayed on a corkboard, whereby participants are given three darts to throw a dart on Vancouver. c) "Apple Bobbing with Local Apples": <ul style="list-style-type: none"> Proposed that two large buckets be filled with 10 local apples in both, whereby participants be asked to race and see who can grab an apple first with their teeth. d) "Basket Toss": <ul style="list-style-type: none"> Proposed that three baskets be placed 3 meters away from participants to through a ball into. <u>Other information</u>: <ul style="list-style-type: none"> <u>Prizes to include</u>: coupons for the UBC Farm, Sprouts, and Agora; key chains and magnets. <u>Mascots</u>: Proposed the use of 2 mascots to be dressed as local vegetables. One mascot's role will be to attract people to the fair by holding a handmade sign inside of the SUB doors reading "Local Food

	<p>Fair outside”, and the other mascot’s role will be to take pictures of people at the “digital picture booth”.</p> <p><u>Atmosphere</u>: Proposed that stations and the Fair tent be decorated with a total of 50 balloons in the colors of the BC Flag, while music is playing.</p> <p><u>Collaboration</u>: Proposed that Group 22’s Local Beer Garden (outlined below) be advertised at the “Local Food Fair”, through the distribution of their promotional materials.</p>
Promotional Tools	<ul style="list-style-type: none"> Designed the following promotional tools: slogan (“Buy Fresh, Buy BC”), two logos, pamphlet, and three posters.
Participants	<ul style="list-style-type: none"> Proposed that an AGSC 450 student be hired to act as the event coordinator with the help of the UBCFSP Coordinator. Proposed that a minimum of 9 volunteers be recruited to man activity booths (two for each station) and one to act as a mascot. Representatives from UBC Farm, SEEDS and Sprouts run their informational tables at the Fair.
Budget	<ul style="list-style-type: none"> Total expected cost: \$3696.80 (note: \$2462.35 costs are for printing and marketing)

Group 22 2006: Proposed Educational Campaign

Campaign components	
Campaign Goals	<ul style="list-style-type: none"> To facilitate community wide understanding in the importance of local foods, and to generate customer support to purchase local foods.
Target Population	<ul style="list-style-type: none"> UBC students, staff, faculty and visitors.
Time Frame	<p>October 12th, 2006: “Food Day”</p> <p>March 2007: Administration of campaign post-evaluation survey</p>
Location	<p>Student Union Building (SUB) Main Concourse and the Food Nutrition and Health (FNH) Preparation Classroom (room 130).</p>
Promotional Events	<ul style="list-style-type: none"> Proposed that a “Local Food Day” be held, consisting of the following components: <ul style="list-style-type: none"> 1) Information booths: <ul style="list-style-type: none"> Proposed information booths that would provide an array of educational materials by a variety of UBC and other local food system related organizations. Contacted the UBC Farm, UBC Sustainability Office, Slowfood Vancouver, FarmFolk/CityFolk, Vancouver Food Policy Council, and the Food and Resource Group to set up information booths. Most groups indicated that they are interested in participating in holding booths. 2) “Taste of UBC event”: <ul style="list-style-type: none"> Proposed that campus food outlets sell samples of their local food menu items, and cooking demonstrations be held by local chefs, whereby they prepare meals using locally grown foods. The purpose of the event is to raise awareness about seasonally available foods grown at UBC Farm or in the wider region of BC, including how to incorporate seasonal foods into diets. Group 22 contacted DV Cuisine, Vine and Garden Catering, Chef Eric, and Chef James Kennedy from the Food and Service Resource Group to hold cooking demonstrations; each indicated that they were interested in participating. Capers, UBC Farm, and Whole Foods Market indicated that they are able to provide donations for the cooking demonstration workshop. Due to health regulations the cooking demonstrations can not be held in the SUB, thus the group proposed that they be held in the Food, Nutrition and Health (FNH) building. 3) Local beer garden fundraiser: <ul style="list-style-type: none"> Proposed a local beer garden fundraiser event be held at the <i>Gallery</i> lounge in the SUB building. The event would include samples of foods prepared by AMSFBD, raffle draws for local food baskets, and specials on local beers. Currently the Gallery does not sell local beers, so a special order would have to be placed in advance. A \$2-3 dollar cover charge would be assessed, and the group anticipated that a total of \$200-300 would be generated to help cover event costs.
Promotional Tools	<ul style="list-style-type: none"> Designed the following promotional tools: slogan (“Every Bite Counts. Eat Local”), logo, pamphlet, website template, and an incentive based stamp-card program.
Evaluation Tools	<ul style="list-style-type: none"> Developed a survey to evaluate levels of customer recognition of the logo and the success of the stamp-card program by the end of the Winter 2006-2007 academic session. Proposed that AGSC 450 2007 students administer the survey to 100 faculty, staff, students, and volunteers at UBC, and evaluate the results in March 2007. Surveys should be administered face-to-face in the SUB, and hand delivered in preaddressed envelopes to faculty and administrative offices on campus.
Participants	<ul style="list-style-type: none"> Proposed that volunteers be recruited from AGSC 100 and FNH classes to help with Food Day. Proposed that the Imagine UBC coordinator be contacted to distribute campaign materials during UBC’s Firstweek initiative.
Budget	<ul style="list-style-type: none"> Total expected <i>profit</i>: \$200-300.

Group 24 2006: Proposed Educational Campaign

Campaign components	
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Campaign Goals	<ul style="list-style-type: none"> To increase awareness, education and support for local food purchasing and consumption among the UBC community.
Target Population	<ul style="list-style-type: none"> UBC patrons of the UBCFS and AMSFBD food outlets, with a focus on students in UBC residences.
Time Frame	October 11-13 th , 2006: Concentrated marketing campaign - "Food Week"
Location	Student Union Building (SUB)
Promotional Events	<ul style="list-style-type: none"> Proposed that a "Local Food Week" be held consisting of the following components: Day 1 and 2: Proposed that the SUB be divided into three sections: campus resources, government and non-government organizations, and businesses for participants to provide educational information, samples of local food and to showcase their efforts related to local food in the GVRD. Group 24 contacted the following organizations to participate in the event: Buy BC; BC Agricultural Council, Green Party of BC, Oxfam Canada, Slow Food Vancouver, FarmFolk/CityFolk Society, Capers Community Market, Choices Market, Wisbey Veggies, UBC Farm, Your Local Farmers Market and the UBC Student Environmental Centre. Proposed that a special focus be given to food options available on campus – such as from UBCFS, AMSFBD, UBC Farm and Sprouts. Day 3: "Local Wine Festival": Designed this event to be held in the SUB Ballroom, between 6-8pm, where attendees will have the opportunity to sample local wines and accompanying appetizers. The event has the capacity to cater to 200 people. Tickets can be sold for \$8 which includes one free glass of wine and appetizers, and will be sold at the door and through advanced purchasing described below. Attendees will also have the opportunity to purchase a raffle ticket for \$2, where their name will be entered into a draw for two bottles of local wine, and be able to sample an additional glass of wine. Recommended that appetizers be provided by AMS Catering Service.
Promotional Tools	<ul style="list-style-type: none"> Designed the following promotional tools: logo, slogan ("Eat Thoughtfully, Think Locally"), magnet, pamphlet, two posters, and a webpage.
Evaluation Tools	<ul style="list-style-type: none"> Developed an evaluation form to determine the degree to which the "Food Week" events were successful in educating and enhancing awareness about local foods. Proposed that the evaluation form be handed out after the "Local Wine Festival" and that as an incentive to fill out the form that attendees be offered the opportunity to put their name in a draw for two bottles of local wine.
Participants	<ul style="list-style-type: none"> Proposed that a coordinator be hired by UBCFS to recruit volunteers and organize the campaign. Proposed that the coordinator recruit volunteers through: Sprouts website and store, AMS Volunteering Service, and the Agricultural Sciences Undergraduate Society (AGUS) email list.
Budget	<ul style="list-style-type: none"> Total expected cost: \$3015.10* *It is anticipated that revenues generated from ticket sales for the "Local Wine Festival" will cover between 70-80% for this portion of the campaign.

Scenario 5: Promoting Education, Awareness, and Participation in Composting at UBC (Groups 2, 5, 17, 27)

- Four groups reviewed current levels of campus participation in composting on campus, determined current barriers that affect levels of participation, and analyzed the overall effectiveness of current campus participation in composting. Groups also reviewed existing tools used to increase campus participation in composting to determine which tools are effective and which ones need further augmentation. Based upon this review, groups proposed strategies and tools to enhance the effectiveness of campus participation in composting.

Summary of General Findings

Campus Participation in Composting & Effectiveness of Current Education and Marketing Tools:

Group 2 2006:

- Developed and launched a survey to 90 students in *Place Vanier* cafeteria in an effort to determine their levels of knowledge about composting and motivations. They also held stakeouts at first year residences of *Place Vanier* and *Totem Park* cafeterias to observe current student usage of compost bins, and to assess their general composting behaviors. Based upon Group 2's survey and stakeout results, the following was found:
 - Approximately half of the students surveyed indicated that they were aware of the composting program at UBC, because they were aware that there was a compost collection site in the *Place Vanier* cafeteria.
 - The most frequently cited external barrier to composting was "lack of available compost bins", and respondents felt that the best way to promote composting was to increase the amount of bins, with corresponding informative posters.
 - The most frequently cited internal barriers to composting included: lack of knowledge about what to compost, lack of initiative/incentive, inconvenience, odor, hygiene, and line-ups to bins.
 - Most students indicated that they would compost if they are aware of where the composting bins are located and can easily obtain and understand information about what and how to compost.
 - Students who did not use the compost correctly, did so by disposing of bones and napkins in the general waste bin, and/or by placing chopsticks, milk cartons and plastic utensils into the compost bins.

Group 5 2006:

- Developed and launched a survey to 35 UBC students to determine: 1) student's knowledge about how to compost; 2) student's perceived barriers to composting; and 3) the frequency of student's composting activities. Based upon Group 5's questionnaire results, the following was found:
 - 14 out of 35 respondents reported that they were aware that they lived near composter.
 - "Almost none" reported that they incorporated composting in their daily lives.
 - 6 out of 35 respondents reported that they do compost, and out of these 6, 2 respondents indicated that they only compost when it is convenient.
 - The most frequently cited reasons that respondents cited for not composting were: 1) lack of accessibility; and 2) lack of knowledge about where composting exists on campus.
 - 25 out of 35 respondents indicated that if their cited barriers were removed they would consider composting.
 - 17 out of 35 reported that they were aware that they could compost on campus and cited a range of locations, but overall were unaware of the majority of locations. (Group 5).

Group 17 2006:

- Conducted observational data collection of compost sites at *Café Perugia*, *Pondersa Café*, *Agora* and the *Forest Sciences Center*, among others to determine whether the bins were clearly labeled, visible, displayed educational materials, clearly labeled signage that indicated which products that can and can not be composted, and to gauge the proximity of bins to garbage cans. Based upon the results of observational data collection of a selection of composting sites, the following was found:
 - The positioning of compost bins do not always promote maximum usage (i.e. compost bins are positioned away from the point of consumption).
 - Some compost bins were not located beside a garbage bin.
 - Some compost bins were not clearly labeled as such.
 - Signage above the compost bins was inconsistent, whereby some bins contained handwritten signage, and others displayed variations of UBCWM signage.
- Conducted a review of current educational and marketing tools used on campus to increase campus composting, to determine which tools are effective and which need augmentation. Based upon a review of UBCWM's composting brochure "A Guide to Organics Collection", it was found that the brochure was informative and comprehensive but it is "primarily targeted to individuals who have already made the decision to begin composting" (p.9).
- The brochure was found to target only one type of population – those at a "preparation stage" – people who have already made the decision to start composting and require resources to help them build the skills to actually compost. Group 17 found that this narrow population focus was problematic because an entire target population is being excluded – those individuals who are not informed about composting.
- It was found that the information contained in the brochure does not contain much information about the benefits of composting, incentives to compost, and mostly contains information about how to join the composting program, how the program operates and overall does not abide by many of the elements of "Community-Based Social Marketing".

Group 27 2006:

- Developed and launched a questionnaire to 37 UBC students at *Gage Residence* in an effort to determine their levels of awareness and participation in composting at *Gage Residence*. Specific objectives included the following: to determine the percentage of residents who compost, able to identify the materials that can/cannot be composted, willing to pay for composting services, willing to opt in/opt out of composting services, and to identify residents perceived barriers to composting, and the resources where residents obtain information about composting. Based upon Group 27's survey results, the following was found:
 - 30 out of the 37 respondents indicated that they were current residents at *Gage*.
 - 2 out of 37 respondents indicated that they had never heard of composting. Of the 35 respondents who indicated that they had heard of composting, 47% indicated that they had heard of composting from "friends/family", 18% indicated from "other school", and 14% indicated from "UBC".
 - 5 out of 26 respondents who indicated that they had a "fairly good" or "very good" understanding of composting had correctly identified all of the compostable materials from a list.
 - 26% of respondents indicated that they had *never composted*.
 - Of those respondents who indicated that they do compost, reported that they had did so for more than 2 years.
 - 19 out of these 30 respondents reported that they were aware of the composting program at *Gage*, but less than *half* of them indicated that they are currently composting. 50% of these *Gage Residence* respondents indicated that the composting program at *Gage* was "somewhat convenient", 28% reported that it was "not very convenient", and 22% reported that it was "very convenient".
 - 13 out of 37 respondents indicated that they knew where to get composting information at UBC, and most of these respondents indicated that they relied on internet sources.
 - Most respondents indicated that there is a *lack of posters* at *Gage* that provides information about composting.
 - 14 out of 20 respondents indicated that they prefer to use bins to pick up compostable waste, and 6 respondents indicated that they prefer biodegradable bags.

- o 16 out of 18 respondents indicated that implementing a door-to-door pick-up service would “improve convenience” of composting. 16 out of 18 respondents reported that they would not opt out for a door-to-door pick-up compost bin service fee of \$10 included in their residence fees.
- o 57% of respondents indicated that setting up an information booth in *Gage* lobby would be “somewhat effective” to increase awareness and participation in composting, 30% of respondents indicated that it would be “very effective”, and 13% of respondents indicated that it would “not be effective”.
- o The most frequently cited responses when asked for suggestions to improve composting awareness and participation at *Gage* residence were the following: hosting of seminars, booths, information sessions or activities on composting. The second most frequently cited set of suggestions included: use of brochures, posters, newsletters, email, mail and placing more bins in the building.
- o The most frequently cited barriers to composting at *Gage* included: “lack of time” and “lack of convenience”.
- o Overall found that “only a minority of *Gage* residences [reported that they] participate in the composting program” (p.16), and there is a lack of understanding of what actually constitutes compostable materials.

Proposed Strategies and Tools to Enhance the Effectiveness of Composting on Campus:

Group 2 2006: Proposed Marketing and Advertising Campaign:

Marketing and Advertising Campaign: Components	
Campaign Goals	<ul style="list-style-type: none"> To promote participation in composting on campus.
Target Population	<ul style="list-style-type: none"> 1st year UBC students.
Time Frame	<ul style="list-style-type: none"> Every September, during Imagine UBC activities, and during <i>Place Vanier</i> and <i>Totem Park</i> orientations.
Promotional Events	<p>1) Developed a “Get Caught Composting” campaign:</p> <ul style="list-style-type: none"> <u>Description</u>: Throughout the academic year, a volunteer will stakeout compost collection bins at unspecified times to “catch” people caught in the act of composting correctly. <u>Incentives</u>: Once “caught” the effective compost person will have his/her name entered in draw to receive an iPod or UBC Bookstore certificate, and will also receive an “I got caught composting button” which the group developed. <u>Rationale</u>: This campaign was developed based upon “social marketing” principles. Participants are provided with an incentive (button, draw and recognition) to engage in a desirable behavior (composting), and the campaign removes an internal barrier to this activity, such as lack of recognition (getting caught!). <p>2) Proposed a series of MUG leader orientation games:</p> <ol style="list-style-type: none"> <u>Scavenger hunt</u>: MUG groups will be given a “sustainability passport”, whereby groups need to collect stamps from a variety of locations which engage in sustainability issues, such as outlets who offer fair trade coffee, compost collection sites, and the C.K. Choi Building. As an incentive to participate in the scavenger hunt a prize should be awarded. <u>Relay race</u>: In the relay race, participants will be asked to sort waste materials (for sanitary reasons, flashcards or plastic mimics should be used instead of actual waste) by three categories: compostable, recyclable, and non-compostable and non-recyclable waste. Every time a participant puts a material in an incorrect bin, a time penalty will be issued. Winners will determined by highest accuracy of sorting and fastest time. <ul style="list-style-type: none"> Proposed that MUG leaders, during orientation help promote participation in composting on campus. Proposed that MUG leaders give a short presentation on the concept of what composting is, where to find compost bins on campus, what can be included in the bins, and should provide opportunities for students to sign up for UBCWM’s recycling and composting newsletter – <i>The Rind</i>.
Promotional Tools	<ul style="list-style-type: none"> Designed the following promotional tools: poster, two buttons, and stickers.
Implementation	<ul style="list-style-type: none"> Proposed that volunteers from Wastefree UBC, as well as former AGSC 450 students be involved in “catching” people who compost at designated bins. Proposed that MUG leaders advertise the campaign at IMAGINE UBC events, and that Residence Sustainability Coordinators also advertise the campaign at residence orientations.

Group 5 2006: Proposed Marketing and Advertising Campaign:

Marketing and Advertising Campaign: Components	
Campaign Goals	<ul style="list-style-type: none"> To increase awareness about composting to UBC students. To prompt behavior changes to increase levels of composting on campus.
Target Population	<ul style="list-style-type: none"> Students who are at a “pre-contemplation level” due to lack of awareness about composting on campus. Based upon the application of “stages of change theory” students must first be made aware that composting exists, how and where to do it, before they can move on to the “contemplation stage”, where they actually think about composting.
Time Frame	<ul style="list-style-type: none"> September 2006 in conjunction with a composting initiative that will be taking place by

	UBCFS, where they will be introducing compost bins into their food outlets.
Promotional Tools	<ul style="list-style-type: none"> Designed the following promotional tools: five posters, two stickers and a pamphlet. <p><u>Posters:</u></p> <ul style="list-style-type: none"> Designed 5 posters in collaboration with an advertising and graphic design student. Each poster is aimed at different levels of "stages of change theory" and "social marketing theory". Three posters were developed that help explain "Why compost?", "Where to compost?", and "What to compost?". Each poster depicts the UBCWM "monkey". <p><u>Stickers:</u></p> <ul style="list-style-type: none"> Developed two stickers to increase awareness of composting by depicting "cues of action" to compost on campus. <p><u>Sticker 1:</u> Depicts "Compost Me, I'm Paper", and was developed to be placed on AMS paper cups, which many people wrongly believe are not compostable. Proposed that these stickers be placed on AMSFBD cups for at least the month of September at <i>Blue Chip Cookies</i>.</p> <p><u>Sticker 2:</u> Depicts "Can You Compost?" and was developed to be placed on the door at garbage bins that are located in close vicinity to compost bins.</p> <p><u>Brochure:</u></p> <ul style="list-style-type: none"> Developed a brochure that contains information about the difference between waste that goes to the landfill and waste that gets composted to increase awareness about the benefits of composting. Proposed that the brochure be made available at all campus compost bins.
Implementation	<ul style="list-style-type: none"> Proposed that promotional tools be placed in the following locations: high traffic areas such as the SUB, in Walter Gage, Fairview Crescent and Marine Drive Residences; bathroom stalls and elevators, and composting bins. Also proposed that all paper promotional tools be placed at Sustainability Office booths that are set up during orientations, such as Imagine and GALA, as well as at other sustainability events held during the year, such as "UBC Responsible Consumption Week". Proposed that the Sustainability Office's Sustainability Coordinators help share information about composting, particularly between November-January, where they focus on material reduction.

Group 17 2006: Proposed Marketing and Advertising Campaign:

Marketing and Advertising Tool	
Objective	<ul style="list-style-type: none"> To develop a brochure that provides basic information about composting, motivations to practice composting, and as tool to recruit new composting coordinators.
Target Population	<ul style="list-style-type: none"> UBC students and staff at UBC food outlets.
Promotional Tool	<ul style="list-style-type: none"> Designed the following promotional tools: one brochure. <p><u>Brochure:</u></p> <ul style="list-style-type: none"> Developed a revamped brochure entitled "Composting at UBC: How you can get Involved", based upon UBCWM's current "A Guide to Organics Collection" brochure. The brochure includes the following six sections: 1) "Why Compost?" (outlines composting benefits), 2) "The In-Vessel Composter" (builds awareness of the facility), 3) "How can I get involved?" (outlines ways to acts), 4) "Tips of success" (outlines tips for bin placement), 5) "Compost Pledge" (opportunity to commit to composting), and 6) "What goes in the bin?" (outlines skills required to compost properly).
Implementation and Evaluation	<ul style="list-style-type: none"> Proposed that the brochure initially be piloted to test it for effectiveness among current compost coordinators, a random selection of staff and students, and stakeholders. Feedback should then be obtained from participants in the pilot to gauge the usefulness of the brochure. If necessary adjustments should be made to the brochure, and then be broadly distributed to managers of campus food outlets and stores, administration staff in institutional buildings, members of UBC clubs, etc. Another evaluation should be conducted, whereby degrees of awareness and attitude changes about composting should be measured. Proposed that when composting is being promoted in residences and during club week that buttons or stickers should be distributed that read "I compost!" to help encourage commitment to composting. Proposed that participants in the composting program obtain signs from the UBC Sustainability Office that read "Our Office Composts", which can help act as a reminder to compost and can help develop a community norm to compost.

Group 27 2006: Proposed Strategies to Enhance Awareness and Participation in Composting

- Based upon Group 27's survey results, they concluded that much more work can be done to improve composting awareness and participation through the use of placing more informative posters around Gage residence, and holding information sessions and activities about composting.

Scenario 6: Develop a strategy for food system sustainability in the University Boulevard Neighbourhood in UBC's University Town (Groups 1, 7, 21, 26)

- Four groups reviewed current UBC planning documents, planning processes and the pattern of development in the University Town and identified opportunities and constraints for food system sustainability. Based upon the identified opportunities and constraints, groups proposed strategies for food system sustainability for the University Boulevard Neighbourhood including implementation actions, budget, timeline and resource requirements.
- All the four groups of scenario 6 (groups 1, 7, 21 & 26) decided that it would be best to collaboratively develop a plan to minimize overlap between groups in developing a strategy to incorporate food system sustainability in the University Boulevard Neighbourhood Plan (UBNP). As a result of this meeting, scenario 6 was divided into 4 themes: "**Group 1:** Connections between UBN and the UBC farm, **Group 7:** Food-related business in UBN, **Group 21:** Connections within the UBN community to encourage a sustainable food system, and **Group 26:** Amending existing planning documents to incorporate food system sustainability at the policy level" (p. 7).

Summary of General Findings

Opportunities and Constraints in Current UBC Planning Documents, Planning Processes, and Pattern of Development in University Town for Food Systems Sustainability:

Opportunities:

- Found that the following opportunities for food system sustainability exist in the UBNP: "preservation of green space and sustainable building guidelines to reduce energy consumption, improve air quality, conserve water, reduce waste, and use resource efficient materials" (University, 2003 in Group 26, p.26)

Constraints:

- Found that while UBC is "obligated by the OCP to engage in meaningful consultation, what constitutes "meaningful" is the subject of debate, and the decision to implement recommendations that stem from consultation is left to UBC's judgment" (Group 21).
- Found that the following constraints for food system sustainability exist in the UBNP: "failure to address food system sustainability in terms of what food outlets will be allowed in the UBN and whether locality of food will be considered" (p.9), and failure to mention "food system sustainability considerations" (Group 26, p.11).

Proposed Vision for Food System Sustainability for the University Boulevard Neighbourhood:

Group 21:

- Proposed a vision for food system sustainability in the UBN housing plan, where infrastructure developments promote social and ecological food system sustainability.

Group 26:

- Developed a vision for food system sustainability in the UBN plan based upon the "Global Eco-village Networks Community Sustainability Assessment" that is designed to quantify the degree of sustainability in a community (p.15).
- Proposed that in order for a community to be sustainable, such as the UBN, "the ecological, social and spiritual components must achieve harmonious balance within themselves and with each other" (p.15). Thus, in order for the UBN to be sustainable, it should strive to obtain the following:

1. Ecological balance

- Should "foster a sense of connection between consumers and the land in which the system is situated", such as by promoting local food production (p.15). This can include incorporating rooftop and community gardens, community kitchens, and creating connections to the UBC Farm.
- Should provide food that is local, organic and nutritionally acceptable, with locality being emphasized first over organic if the organic foods have high food miles.
- Should offer abundant opportunities to compost and recycle.
- Surplus food should be donated to campus food banks and community kitchens, or otherwise should be composted.

2. Social balance

- Should "provide spaces that encourage relationships and communication between community members while concurrently allowing productivity" (p.16). This can include incorporating community kitchens and gardens into the community.

3. Spiritual balance

- Should hold regular and frequent celebrations to encourage community members to develop a sense of belonging. This can be done through the regular holding of community dinners (Group 26).

Proposed Strategies for Food System Sustainability for the University Boulevard Neighbourhood:

Group 21:

1. Proposed that a **green roof-farming project** be implemented in the UBN residences.

Functions:

1) Rented space to residents; 2) a permaculture demonstration site, 3) a community-based food production space, where shallow root fruits and vegetables would be grown that could be used for a community kitchen.

Waste:

- Proposed that rooftop-composting bins be incorporated for waste derived from the garden to be deposited.

Maintenance:

- Proposed that a part-time staff member be hired by the residence to maintain the green roof garden.
- Proposed that "a committee for the rooftop garden be established to maintain and expand the garden and educational programs into the community" (p.14).

Access:

- Proposed that a wide exterior staircase be built to transport gardening material such as soil, fertilizer, and compost.
- Proposed that an interior staircase should be built for residents to access the garden.

2. Proposed that a **composting program** be implemented in residences.

Functions:

- To encourage sustainable waste management in residences.

Description:

- Either composting boxes or biodegradable composting bags should be given to each resident dwelling.
- A large communal composter should be placed in an accessible common area in the building for residents to dispose of their compost.

Pick-Up:

- Proposed that the composting program be incorporated into UBC Waste Management's existing program, whereby UBCWM adds the residence to their pick-up route and transfer the compost to their in-vessel composting facility.

3. Proposed that **window boxes** be incorporated into residences.

Function:

- Window boxes would give residents the opportunity to cultivate their own herbs, small vegetables and fruits.

4. Proposed that **common spaces** be incorporated into the design of residences.

Functions:

- To enhance resident social interactions, by providing space for community gatherings.

Description:

- The common space serve multi-uses, such as incorporating a community kitchen where residents could prepare, cook, and enjoy meals together. The common space should be located at the bottom of the interior stairway entrance to the rooftop garden which would encourage awareness and participation.

Group 26:

1. A "UBC Food Policy Council" should be developed whose role would include overseeing food system aspects in planning. The Council should consist of representatives from different segments of the food system to help ensure that the food system is considered in the process of campus planning. Proposed the following representatives form the council:

- "Representatives from each of the eight local areas in University Town;
- At least one member from all UBFSP partners/collaborators (AGSC 2005/07);
- Representatives from UBC Properties Trust and University Neighbourhoods Association;
- A nutrition educator from within the Faculty of Land & Food Systems;
- Student Representatives from AMS and Sprouts;
- Sustainability Consultant;
- Members of the UBC community interested in influencing the food system on campus" (p.18).

2. At the policy level, food system sustainability should be implemented in the "Official Community Plan", to help oblige campus developers to consider it a part of the planning process. Likewise, planning documents should be amended to include a "sustainability clause" as part of policy for development, which incorporates the UBCFSP vision for a sustainable food system and Group 26's specific proposed vision for UBN (Group 26).

Scenario 7: Benchmarking transitions towards local and sustainable UBC food system (Groups 11, 18, 25)

- Three groups reviewed the UBCFSP "Model of Transition to Sustainability" and based upon close consultation with UBCFSP partners, proposed a series of benchmarks for each of a preliminary set of overlapping social, economic and ecological indicators, proposed alternative indicators, and integrated them into the model, along with a corresponding timescale. Groups also determined the information base required to create a benchmarking plan, if information gaps were found, proposed a method of obtaining and assessing the required information.

Summary of General Findings**Proposed Indicators and Benchmarks for UBCFS, AMSFBD, and the UBC Farm:**

Social-Economic Indicators	Benchmarks
Profitability of the UBC Farm	<ul style="list-style-type: none"> Increase revenue to \$250 000 by 2010 (Group 18). To break even (Group 11, 25).
Profitability per acre at UBC Farm	<ul style="list-style-type: none"> Revenue per acre at \$30,000 for 2010-12 (Group 25).
% of UBCFS revenue that gets returned to the UBC community	<ul style="list-style-type: none"> Estimated that a return of 14% to 18% of total revenue is reasonable (Group 18). Estimated that a return of 6.3% of total revenue is reasonable (Group 25).
% of AMSFBD revenue that gets returned to the UBC community	<ul style="list-style-type: none"> Should try to stay where we they are at 35% of total revenue (Group 18). Estimated that a return of 17.6% of total revenue is reasonable (Group 25).
% of UBCFS units offering Fair Trade products	<ul style="list-style-type: none"> 100% of UBCFS units should offer fair trade products (Group 18, 25).
% of AMSFBD units offering Fair Trade products	<ul style="list-style-type: none"> 100% of AMSFBD outlets should offer fair trade products (Group 18, 25).
% of Fair Trade products sold at AMSFBD outlets	<ul style="list-style-type: none"> 100% fair trade sugar by 2010; by 2020, 100 % fair trade bananas, mangos, tea and other available fair trade products at AMSFBD that use these products (Group 18). 100% of targeted items, where one new fair trade target item is introduced per year, such as: tea, chocolate/ cocoa, sugar, rice, citrus fruits, bananas, nuts and avocados (Group 11).
% of Fair Trade products sold at UBCFS outlets	<ul style="list-style-type: none"> 100% of all coffee sold at UBCFS that are not franchises sell fair trade coffee by 2010. UBCFS are bound by length of contract time – they must wait for the current contracts to expire before they can purchase products (ex. Fair trade) from a new producer/vendor (Group 18). Gradual increase in variety of fair trade products, since although UBCFS are very willing to switch to fair trade products except most units will not be able to sell fair trade products until their current contracts expire (Group 11).
% of UBC students employed at UBCFS	<ul style="list-style-type: none"> As a result of union regulations, there is not a lot of flexibility in terms of how many students they can hire (Group 18). Increased unionized students (Group 11). Maintain 37.04% student employee level (Group 25).
% of UBC students employed at AMSFBD	<ul style="list-style-type: none"> Maintain student employment at current level of 87-89% of total employees (Group 11, 18, 25).
Average wage of UBC students employed at UBCFS	<ul style="list-style-type: none"> Wage should be raised to \$9.00 as soon as possible and should considering taking into account increases in cost of living and/or tuition in the future (Group 18). Wage should be raised to \$8.50/hour (Group 11). Wage should be raised to \$9.25/hour for non-unionized students in 5 years (Group 25).
Average wage of UBC students employed at AMSFBD	<ul style="list-style-type: none"> Maintain student wages at current level (\$9.00 per hour) and in the future, consider taking into account increases in the cost of living/tuition increases (Group 18). Maintain average wages of \$9.35/ hour for a student employed for 1 year, \$9.60/ hour for a student employed for 2 years (Group 11). Average student wage should be raised to \$9.25/hour (Group 25).
% of the student's income used to afford nutritious, safe and appropriate foods sold at UBC	<ul style="list-style-type: none"> The indicator required a survey to answer, thus no benchmark was developed (Group 11, 18). Indeterminate benchmark due to lack of information (Group 25).

Ecological Indicators	Benchmarks
% of food used by AMSFBD that <i>can</i> be obtained locally	<ul style="list-style-type: none"> Aspire to purchase local foods wherever possible; buy local foods in season - 30 to 95% of foods, depending on the season (average of 54%) (Group 18).
% of food used by UBCFS that <i>can</i> be obtained locally	<ul style="list-style-type: none"> Aspire to purchase local foods wherever possible; buy local foods in season - 30 to 95% of foods, depending on the season (average of 54%) (Group 18).
% of organic waste that gets composted on campus	<ul style="list-style-type: none"> 100% of pre- and post- consumption (post-sale) should be composted. All outlets should have compost receptacles (Group 18). Increase composted waste from present 42% to 60% of total waste (or 86% of compostable waste) in 5 years (Group 25).
% of disposable products consumers use at campus residencies and outlets	<ul style="list-style-type: none"> Reduce to 30% by 2010 and to 20% by 2020 (Group 18). Reduce to 30% (Group 11). Indeterminate benchmark due to lack of information (Group 25).
Distance that UBC consumer waste travels to end disposal/composting	<ul style="list-style-type: none"> All compostable waste should be composted at UBC's in-vessel facility until it reaches capacity (Group 18). Indeterminate benchmark due to lack of information (Group 25).

Ecological-Economic Indicators	Benchmarks
% of local food bought by AMSFBD	<ul style="list-style-type: none"> By 2010, 30% of foods be purchased locally, and that by 2020, a minimum of 54% of food be purchased locally (Group 18). About 80% of all food purchased locally and 20% non-local. Due to seasonal variance, for produce – 43% produce purchased locally (80% of currently available 54% of produce on average available locally per month) (Group 11). 80% of produce purchased from a local source (43% of the 54% available in BC) and

	100% of poultry and liquid egg products purchased from a local source in 5 years (Group 25).
% of local food bought by UBCFS	<ul style="list-style-type: none"> We do not have a benchmark for this indicator (Group 18). 50% purchases local poultry, dairy, eggs and seasonal fresh produce (Group 11). Indeterminate benchmark due to lack of information (Group 25).
% of UBC Farm products that are sold to UBCFS and AMSFBD	<ul style="list-style-type: none"> Representatives of the Farm believed that this is not a valuable indicator, thus no benchmark was established (Group 18). An increase of \$500 (\$4000 total) worth of products should be sold to UBCFS over the next 5 years (Group 11). AMSFBD should increase produce purchases by 2-3% from the farm over the next five years (Group 11). Indeterminate benchmark due to lack of information (Group 25).
% of food prepared at UBC	<ul style="list-style-type: none"> Maintain AMSFBD's current level of 80% prepared/processed foods at UBC (Group 18).

Social Indicators	Benchmarks
% of UBC students who volunteer in activities related to food security and food system sustainability on campus	<ul style="list-style-type: none"> 10% of UBC students (Group 18). The UBC Farm should increase its volunteers between 10-25% per year for the next 5 years, with a goal of 15% increase for next year, accumulating to 350 volunteers (Group 11). 1.4% of total UBC students each year (Group 25).
% of fresh foods available on campus at food outlets	<ul style="list-style-type: none"> AMSFBD to increase to 13% for 2010, and to 25% by 2020 (Group 18). AMSFBD to increase to 21% where 7 major outlets carry three fresh produce items (Group 11). AMSFBD to increase to 30.6% of items being fresh foods in 5 years (Group 25).
% of vegetarian and vegan options at AMSFBD food outlets	<ul style="list-style-type: none"> AMSFBD to increase to 50% for vegetarian and to 13% for vegan options (Group 18). 7 of the major AMSFBD outlets increase the availability of fresh items from 4% to 21%, which would require that each of these outlets carry three fresh produce items (Group 11). AMSFBD to increase to 50% of items which are vegetarian (148 out of 296 items) (Group 25). AMSFBD to increase each outlet to serve 2 or more vegan servings (13% of total items) (Group 25). For UBCFS: indeterminate benchmark due to lack of information (Group 25).

Social-Ecological Indicators	Benchmarks
% of UBC courses offered about food security and food system sustainability	<ul style="list-style-type: none"> The Learning exchange would like to have 10% of the student body involved in Community Service learning (Group 11, 18). To have 45 courses offered involving the UBC Farm (Group 11). Indeterminate benchmark due to lack of information (Group 25).

Key Recommendations

All Partners: General

- Choose the best survey developed from groups in scenario 3, designed to address the desirability to purchase local foods among campus consumers, and administer it campus wide in October 2006.
- Choose the best local food campaign, or components developed from groups in scenario 4, and launch it during the week of "World Food Day" – October 16th-19th.
- Consider making a "Local Food Week" or a local food day an annual event (Group 10).
- Should create a "Food Policy Council at UBC, using University Boulevard Neighbourhood (UBN) as a pilot project to prove the efficacy of such a council as a resource for future campus-wide development" (Group 26, p.20).
- Agree on a set of specific benchmarks for food system sustainability, which partners would commit to reporting on over the next five years and beyond (Group 11, 28).
- Agree upon a standardized definition for the term local (Group 18).

Centre for Sustainable Food Systems at UBC Farm:

- Consider following up contact with Your Local Farmers Market Society (YLFMS) to collaborate in implementing a full-fledged UBC Farmer's Market (Group 38).
- Consider engaging in the cultivation of rare specialty crops, such as gourmet mushrooms (lobsters, portobellos, and Shitakes), as well as organic cranberries and grapes to generate revenue in an expanding niche market (Group 28).
- Consider posting information about each food outlet on campus that serves UBC Farm produce to encourage patronage at these outlets and to serve as a means of increasing connections between food system actors (Group 3).
- Serve as the main food provider, and act as a guest speaker and information provider for the local/seasonal food theme night at *Place Vanier* and *Totem Park*, since this would help raise awareness and support for the UBC Farm (Group 23).
- Invite *Place Vanier* and *Totem Park* residents to tour the UBC Farm, to help facilitate connections with food they consume, and the Farm should also provide opportunities for them to sign up to volunteer at the Farm (Group 23).
- Provide those UBC campus outlets which offer items using UBC Farm ingredients with their logo signs, so that their products can be easily identified to encourage more local purchasing.

UBC Food Providers: AMSFBD and UBCFS

Both AMSFBD and UBCFS:

- To implement a local BC and /or local UBC logo at food outlets as part of an aggressive marketing campaign to aimed at increasing knowledge and consumption of local foods (Group 6).
- Continue working with the Faculty of Land and Food Systems to: 1) expand re-localization initiatives and 2) set achievable benchmarks to purchase local foods (i.e. 15% of food sources to be produced in BC by 2008 (Group 24).
- Consider requesting that at least one staff member from each UBCFS and AMSFBD outlet attend a composting workshop or tour (Group 5).
- Consider implementing uniform signs for specific dietary concerns (i.e.: vegetarian, kosher, vegan and celiac friendly or contains no dairy, egg, nuts or wheat) to increase the ability for consumers to make culturally appropriate choices (Group 18).
- Consider making nutrition facts and lists of ingredients easily available for consumers to enhance the ability for consumers to be more aware of which nutrients are in the foods they are consuming, and what the food is composed of. The nutritional analysis could be accomplished by utilizing nutrition students as volunteers to analyze and develop standardized dietary materials (Group 18).

AMS Food and Beverage Department (AMSFBD):

Pie R Squared:

- Solidify a contract with the UBC Farm to begin delivery of squash (approximately 70kg/week for 12 weeks) and rosemary (600g/week) commencing as soon as possible (Group 13).
- Consider using compostable cups at all AMSFBD outlets, versus only at *Blue Chip Cookies* (Group 5).
- Consider placing Group 5's composting stickers on all paper cups to increase awareness that these cups can be composted (Group 5).

UBC Food Services (UBCFS):

Café Perugia:

- Implement recipes from Group 6's recipe bank during the fall months since this is an ideal time to serve root vegetables (Group 6).

99 Chairs:

- Conduct a trial period in the implementation of a free-range egg breakfast and free-run chicken burger (i.e. such as through rotating these items as "special of the day"), and seasonal BC vegetable soups (Group 6).

The Barn Coffee Shop:

- Implement Group 8's proposed seasonal menus (Group 8).
- Market *The Barr's* new menus and corresponding image through campus newspapers, the new Old Barn Community Centre, on-campus residence buildings and through forming relationships UBC Public Relations to gain recognition to potential consumers in University Town and off-campus (Group 8).

UBC Sustainability Office (SO):

- During the "Waste Reduction Focus" November to January 2007 period, consider having sustainability coordinators address classes to increase awareness about campus composting, and other elements of Group 5's proposed September composting campaign (Group 5).

UBC Waste Management:

- Consider providing a composting station in the breezeway at the upper level of the SUB (Group 3).
- Choose the best educational and marketing composting tools developed from groups in scenario 5, and implement them.
- Consider placing a large display of coffee cups outside of the SUB to help draw attention to the fact that paper cups can indeed be placed in the compost (Group 5).
- Consider using Group 17's proposed "Composting at UBC" brochure as a means to recruit new volunteer compost coordinators. Should also consider distributing the brochure to student groups, administration, and staff at food outlets to help increase participation in composting (Group 17).
- Consider exploring the desirability and feasibility of implementing biodegradable bags at a selection of student residences, such as Gage (Group 27).
- Consider conducting more in-depth surveys about levels of composting awareness and participation at residences (Group 27).

Gage Residence and the En-Gage Program Representatives:

- Consider creating more promotional material about composting for *Gage Residence*, such as posters and pamphlets. These tools should include information about "where the composting bins are at Gage Residence, what can go into the composting bins, when the compostable material is picked up, and clarify where the compostable material goes after Gage – to the In-Vessel Composter" (Group 27).
- Consider incorporating a \$10 compost bin fee into residence fees for Gage Residence, where students must return the compost bin at the end of the year to obtain a fee refund (Group 27).
- Consider informing more staff at Gage Residence about the composting program at Gage so that they can better respond to any residence questions about the bins, and also help encourage them to compost (Group 27).

UBC Residence and Sustainability Coordinator Program:

- REZSC's should consider working directly with the Residence Life Managers so they can offer sustainability education during orientation to students (Group 2).

UBC Campus and Community Planning (CCP):

- Consider working with UBC Properties and Trust, University Town, and other departments to define a set of objectives and indicators for what should constitute sustainable food system planning at UBC (Group 21).
- Consider forming a "UBC Food Policy Council" to develop ways that food system sustainability can be considered in the process of planning (Group 26).
- Consider "working with the UBC Farm to create a new delimited bicycle route along Wesbrook Mall and a bus stop closer to the Farm for convenience. Candidates for this bus stop have been identified as the bus routes number 41, 43, 49, and 480" (Group 28, p. 18).
- Consider "incorporating food system sustainability at the policy level in the Official Community Plan (OCP)" (Group 26, p.20).

AGSC 450 2007 Colleagues:

- Explore the possibility of establishing a food product distribution center at UBC Farm (Group 19).
- Analyze and review purchasing data obtained from Group 19 from UBCFS and AMSFBD to determine approximate food volumes required to meet the requirements of their food outlets (Group 19).
- Continue working on ways that UBCFS and AMSFBD can purchase more local foods (Group 19).
- Expand upon Group 19's investigation of creating a business relationship between Small Potatoes Urban Delivery (SPUD) and UBC Food providers and distributors. Specifically, continue with Group 19's correspondence with SPUD, whereby they indicated that they are currently investigating to expand into corporate deliveries, beginning with UBC and SFU (Group 19).
- Continue the work of Group 28 to develop a "full-fledged farmers market" on campus for the summer of 2007 (Group 28).
- Explore the possibility of "creating a cooperative of organic farmers with the UBC Farm playing a central role...[which] would help the Farm increase its legitimacy and perceived importance as the pivotal center of an important community project" (Group 28, p.17).
- Continue to work on ways to incorporate more local and seasonal foods in campus outlet menus, and to investigate how these items can be competitively supplied (Group 6).
- Explore ways to market and promote free-range products at *99 Chairs* and at other selected food outlets on campus (Group 6).
- Work with the Sauder School of Business to determine the economic viability for UBC Food Services (UBCFS) to purchase BC Hot House produce to compensate for the lack of availability of locally grown produce during the period between April and May (Group 8).
- Investigate how using local seasonal foods can help meet human nutrition requirements, in an effort to aid in the collaboration between dieticians and agroecologists in promoting sustainable food systems (Group 8).
- Conduct a cost-benefit analysis to determine the economic feasibility of building a root cellar at UBC Farm, whereby groups analyze the costs of labour, gravel, cement, framing supplies, drainage, shelving, crates, maintenance, and rented and purchased machinery required (Group 13).
- If the root cellar is constructed at UBC Farm, to explore ways that produce stored in it can be sold to other campus and off campus food outlets and grocers (Group 13).
- Explore ways to increase UBC Farm's current CSA project to 50 or more members (Group 13).
- Following the campus wide administration of the survey to address the desirability to purchase local foods among campus consumers, analyze and summarize survey results and present to the UBCFS and AMSFBD Project partners (Group 9).
- Evaluate the effectiveness of the local food educational campaign, by identifying successes, failures and challenges to inform modifications and expansions to future campaigns (Group 14, 24), paying close attention to the effectiveness of promotional tools, ease of organization of the event, efficiency of budget use and levels of participation (Group 24). Develop a survey to measure the effectiveness of the campaign (Group 10).
- Explore how other populations on campus, such as the Chancellor Blvd, Fairview and Acadia residential neighbourhoods, as well as other campus food outlets can get more involved in campus composting, in an effort to bring the UBC In-vessel Composting Facility to full functional capacity (Group 2).
- Explore the feasibility for paper towel compost bins to be offered in campus bathrooms, including where they should be offered, and who should maintain them (Group 5).
- Explore ways that composting can be effectively incorporated into University Town (Group 5).
- Determine the feasibility of increasing the number of campus compost bins to a ratio of 1:1 of compost to garbage bins (Group 5).
- Consider developing new questions, such as those that pertain to education, to be incorporated into UBCWM's survey of compost coordinators for 2007 (Group 17).
- Explore ways that the "Organics Collection Program" can be expanded to private food outlets and more private residences on campus (Group 17).

- Consider working with UBC Properties and Trust, University Town, Campus and Community Planning and other departments to define a set of objectives and indicators for what should constitute sustainable food system planning at UBC (Group 21).
- Analyze the Main Campus Plan (MCP), since it is up for revision and develop a strategy for food system sustainability (Group 21).
- Consider “working with the University Neighbourhood Association to develop a survey to identify what food retailers or improvements to the UBC food system UBC community members would like to see on the entire campus in general and UBN in particular” (Group 26, p.21).
- Consider creating a “relational database to which indicators, benchmarks and progress reports could be added through a user-friendly web interface, which could then dynamically produce an interactive model which would display a system wide visual of how sustainability is being implemented into the system” (Group 11, p.23). The creation of a web interface, would allow partners to enter data to help maintain the model (Group 11).
- Continue to develop Group 18’s proposed benchmarks and put forth solid recommendations for how to obtain these benchmarks (Group 18).
- Further investigate the curricular contributions to food systems sustainability at UBC (Group 18).
- Explore the possibility of creating a more complex model for each of UBCFS, AMSFBD, and UBC Farm to prevent the oversimplification of having one single model (Group 18).
- Investigate and consider making the number of research initiatives at UBC Farm and indicator (Group 25).
- Investigate and consider making an indicator the number of organic foods available at UBC (Group 25).
- Investigate and consider making an indicator the volume of garbage that UBC produces, and if possible how much of it can be used for recycling and/or composting (Group 25).
- Create a “master model which highlights key/essential indicators which all partners/subsystems feel are the most representative of indicating where the *whole* food system is” (Group 25, p.22).
- Explore how indicators and benchmarks could be placed into real time on the Sustainability Office website so others would be able to have access to this information (Group 25).