Food Systems on MDI Report

Community Planning and Decision Making

College Of the Atlantic

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Introduction

Food connects us to the land and to each other. Food and agriculture surpass human borders, cultures and differences. In our report we were interested in exploring Mount Desert Island’s (MDI) food systems to gain a better understanding of how we are connected to global and local food sources and people. To learn about the nature of food systems on MDI, we decided to interview local people from the community who are working with organizations and programs involved in the food system. Additionally, we read research reports that gave us background information about the food production and distribution in Maine and Hancock County. We then narrowed our focus and delved deeply into MDI’s food system. In this report, we summarize the information we gathered in the last 10 weeks. This report can function as an introduction to anybody who is interested in understanding how the food systems on MDI work. Due to the nature of our class, Community Planning and Decision Making, we focused our research on the social implications of the food systems. The two major themes of our report were food insecurity and local farms. Food insecurity is a growing problem on MDI and increased consumption and access to locally grown food has the potential to mitigate food insecurity and environmental degradation that comes from industrial agriculture and global markets. We hope that in the future the key organizations that are working on MDI will work together to further address the issues of food insecurity on MDI.

Food Systems in Maine

Economics (Lydia)

The Maine Food Strategy Network compiled a framework report as a tool for advancing Maine’s food systems in 2016. The report concluded that Mainers value food systems that create economic development opportunities and builds lasting livelihoods. A report by the Harvard Business School cited in the report made a case for the economic potential of trading clusters in Maine’s food industry. In the last census period, the value of agricultural production in Maine was reported to have grown by 24%. Food has the potential to drive economic growth statewide. A labor shortage in the fishing, livestock processing, and food manufacturing sectors is an economic hurdle for Maine’s food systems. However, from 2007-2012, employment in the agricultural sector increased by 1,326 jobs, totaling in 9,417 jobs in 2012 (Maine Food Strategy Framework).

Farming (Lydia)

Mainers value food systems that create “economic development opportunities and sustains livelihoods, relies upon and contributes to a healthy and resilient environment, enriches Maine’s cultural heritage, ecology and wellness, and ensures everyone has access to healthy food” (Maine Food Strategy Framework). As a result of global warming, some parts of the state have warmed by two plant hardiness zones: which creates longer growing seasons but also supports the growth of weeds, new plants, pests, and diseases. The last U.S. Agriculture census revealed that the numbers of new farmers and women farmers in the state of maine has increased markedly, but the average net income of farmers has remained at approximately $20,000 for the last 10 years. The crops with the most economic value being produced in maine are potatoes, hay, oats, corn, maple syrup and apples. The crops with the highest acre space in Maine include hay, vegetables, potatoes and berries. The average age of the principal operator (farmer) in Maine is 57 (USDA State Agricultural Overview).

Fishing (Lydia)

The Maine Food Strategy Fisheries Primer provides a broad overview of fisheries management, regulation and the role of fisheries in the food systems. It highlights key considerations for fisheries in the Maine Food Strategy.

The marine ecosystem that Maine fisheries depend on is highly simplified, primarily focused on lobster, and unable to support a more stable, diversified natural system. Lobster has made up an average
of 70% of Maine’s landed value during the last five years. As the ecosystem changes in the next ten years, the state may see a downturn in lobster. Dam removal in Maine rivers is likely to have a positive impact on the marine environment. 120 million pounds of seafood are now being produced. This volume challenges shore side infrastructure and markets and demands improved infrastructure and services. More consumers need to be eating lobster at a price that translates to fair boat prices. “Resilience, in both economic and ecological systems requires diversification. The seafood system challenge is to develop infrastructure and markets that can handle small amounts of many species and return value to boats in many ports” (Maine Food Strategy Fisheries Primer). Small scale aquaculture, particularly shellfish and seaweed aquaculture, is growing and viewed as a potential source of diversification for Maine lobstersmen. Climate change has contributed to the state’s record breaking lobster harvest as warmer waters have encouraged the migration of lobster from southern areas.

The most fundamental difference between agriculture and fisheries lies in the access to the means of production. Fisheries use public space and public resources whereas farmland can be privately owned or leased. For fisheries, access to catch fish or farm sea vegetables requires permission from the government. The opportunity to fish is created by permission to harvest a public resource and licenses or permits that are issued by the state or federal government. In Maine, most licenses are issued to a person, none are transferrable, and many require the owner of the permit to be the owner of the fishing boat. This is called “owner operator.” The permits issued by the federal government are connected to a boat, not a person, and are transferrable. The licensing system has created an inflexible and lobster-dependent situation in Maine (Maine Food Strategy Fisheries Primer).

Locality (Lydia)

There is an apparent trend of Mainers being interested in supporting local food systems and markets. Communities in Maine are increasingly recognizing the value of local food production and fishing to their economies, ways of life, and the conservation of natural resources. 80% of respondents to a Maine Food Strategy survey chose to purchase local or Maine food when given the choice of buying “Maine grown/caught/raised food” as opposed to buying from “somewhere else”. Of the respondents to the same survey, 64% chose local or Maine food to “support local farmers/fishermen/businesses”. 75% of Maine school districts claimed that the biggest barrier to purchasing local food is year round availability, while only 50% said that cost was a barrier. 88% of distributors in New England believe their local food sales to institutions will increase (Maine Food Strategy Consumer Survey).

Many Maine residents are involved in food self-provisioning. One third of respondents to the Maine Food Strategy Consumer Survey cited self-provisioning activities as a part of their food supply. These activities include gardening, hunting, fishing, and foraging food. When asked what barriers exist to obtaining more food from gardening and food raising, “lack of access to land/room” (37%) and “lack of time” (32%) were the most frequently noted reasons (Maine Food Strategy Consumer Survey).

Maine Farmland Trust (Lydia)

The Maine Farmland Trust is a statewide organization that protects farmland, supports farmers, and advances farming. The goal of the trust is not only to protect Maine farmland, but also to revitalize Maine’s rural landscape by keeping agricultural lands working and helping farmers and their communities thrive.

As of January 2017, Maine Farmland Trust has facilitated protection of 53,871 acres of farmland for future food production. They have established 166 farmlinks, many with promising beginning farmers who will continue to feed Maine’s people and rural economy. They have supported 762 farm families with direct services, helping them grow strong businesses and develop new markets, and are comprised of 6,291 members who are passionate about the future of farming, the environment, and the economy.
One of the largest challenges for farmers is the increasingly high cost of land in Maine. Maine Farmland Trust works to protect farm land through agricultural easements. They describe farm land protection on their website as “the only way we will ensure that we have enough land to grow our food in the future. Agricultural easements protect land from non-farm development and often allow the sale of land at its “farm use value” which is often necessary to make farmland affordable for farmers” (Maine Farmland Trust). After the easements are arranged, a connection needs to be made between old and new farmers who share the same goal of keeping land in agricultural production. “In the next decade, we expect that as many as 400,000 acres of Maine farmland will change hands as farmers age and retire. Connecting landowners with incoming farmers helps keep this land in production, whether through a sale, lease arrangement, or other support of a farmer’s land search” (Maine Farmland Trust).

The Maine Farmland Trust is also interested in increasing farm viability in Maine and states, To revitalize Maine’s rural communities, we must help farmers thrive and help more Mainers access local food. Collaborating and consulting with farmers, food-related businesses, and organizations with interests that range from economic development to food security, we help grow creative programs and enterprises designed to support a vibrant and resilient food systems that work for all Mainers (Maine Farmland Trust).

**Food Insecurity (Bunly & Yaniv)**

The United States Department of Agriculture (USDA), defines food insecurity as a household has limited access to adequate food because of residents’ economic level and social condition.  

A person is considered food insecure if they lack access to enough food to ensure adequate nutrition. All hungry people are food insecure, but not all food insecure people are hungry; there are other causes of food insecurity including poor intake of micronutrients (Farineau, 2016).

According to a 2010 USDA report, Maine ranked second in “very low food security nation” and ninth in “food insecurity.” The USDA defines very low food security as “missing multiple meals during an extended period of time or eating food that is inappropriate for that meal” (Yellen, Swann, and Schmidt, 140). If the state authority does not find any solutions, Feeding America predicts that the number of those experiencing hunger will increase by 50% by 2025. According to *Hunger in Maine*, Yellen, Swann, and Schmidt state three possible reasons as to why Maine has the second highest statistic of hunger in the nation. First, there is a scarcity of jobs with a livable wage. Second, there are high housing and heating costs. Third, there is a large elderly population with high medical costs. To solve the problem of hunger in Maine, many governmental and NGO food assistance programs are involved:

**Governmental programs**

- Supplemental Nutrition Assistance Program (SNAP) or food stamps
  - Offers independence, food choice, and flexibility for people working toward self-sufficiency
  - In the summer of 2011, the program published an online application for people who are too busy with work, hesitate to ask for help at a Maine Department of Health and Human Service office, or cannot come during the office hours to apply for an electronic benefit transfer (EBT) card with a privacy and secure.
  - With an EBT card, people can buy any kind of food at any supermarkets or stores. Every month, SNAP directly deposits some money to an EBT card account.

- Women, Infants, and Children (WIC)
  - Provides vouchers to low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and for infants and children up to age five to assist them with buying healthy foods, including milk, fruits, eggs, cereal, vegetables, and infant foods.
In the summer, the low-income women can get produce from any Maine farmer by showing their WIC vouchers

- National School Lunch Programs
  - Offers commodity and cash support for students buying food to keep nutritional balance; reduce price or get free lunches every day in school depending on how many family member and family incomes.
  - Students from families of three members with incomes at or below $23,803 per year are eligible for free meals, with incomes at $33,874 are eligible for reduced price meals.
  - Maine Department of Education reports that 45% of students in Maine are eligible for free or reduced price meals.
  - During vacation, most students still get free or reduced price meals from Summer Food Service Program and food pantries

- Commodity Programs:
  - Food and Nutrition Service (FNS)
    - Established in 1969
    - Provides food to food pantries and soup kitchens
  - The Emergency Food Assistance Program (TEFAP)
    - Established in 1933 as the Commodity Credit Corporation to help farmers who were suffering from the Great Depression
    - In 1981, TEFAP was authorized to distribute surplus foods to households
    - When the amount of hunger population increased, TEFAP expanded to soup kitchens and food pantries.
    - In 1990, its name was changed to Temporary Emergency Assistance Program

NGO programs:
- Food pantries: “Food pantries are disparate church, civic, and community volunteer groups, varying in size, capacity, and mission.” Generally, food pantries operate either weekly or one day per month by offering cooked and fresh food.
  - Soup kitchens: Offer free or lower price cooked food than market price in the community. Sometimes soup kitchens cooperate with food pantries to distribute food. Staff in the soup kitchens are usually volunteers.
  - Food banks: Collect and store donated food from wholesale food and distribute to local food pantries, soup kitchens, homeless shelters, etc.

In Maine, as of December 2016, the Food Bank had 399 partners: 303 food Pantries, 50 meal sites, and 46 other organizations, including homeless shelters, youth programs, and group buying clubs. Hunger relief organizations are spread throughout the state, but there are fewer in less densely populated areas. Food pantries and soup kitchens are typically run by small, grassroots groups struggling to meet the ongoing needs of communities facing economic hardships.

**Mount Desert Island Food Systems**

The food system on Mount Desert Island differ from that of the rest of Maine due to its island status and prevalent tourism industry.

**Food insecurity in Hancock County and Mount Desert Island (MDI) (Yaniv)**
Hancock County is made up of 36 towns and has an estimated population of 54,419 people. The most economic activity occurs in cities along the coast: Bucksport, Blue Hill, Ellsworth, Bar Harbor, and Southwest Harbor. The county’s two largest employers are International Paper and Jackson Laboratory.

According to the 2015 government census (United States Census Bureau), Hancock County’s median household income is 47,030 dollars, 31% of the population is employed, and 11.5% of people live in poverty. In terms of health, 24.5% of adults over the age of 20 in Hancock County are obese; this is lower than the national level of 30.6% obesity. (Census Bureau, 2015)

Many tourists visit Hancock County during the summer months. For this reason, food increases in price during the tourist season. Summer can be an extremely challenging time in terms of food security, especially for low income parents since school-based meals are unavailable during the extended holiday. In addition, public transportation routes do not always link residential neighborhoods with supermarkets and food pantries. Commuting to buy food can be a major obstacle, especially for elderly or disabled people (Hunger Pains, 2017).

Compared to the average U.S. county, Hancock County has the following: a very high percentage of residents with low access to grocery stores (6.2% in Hancock County vs. 19.7% in The average US county), a high amount of fast food restaurants per 1,000 residents (0.715 vs. 0.583), a moderate percentage of people who are food insecure (15.7% vs. 14.7%), a very high amount of grocery stores per 1,000 residents (0.550 vs. 0.197), and a low percentage of school children that qualify for free lunches (34.5% vs. 41.8%).

In 2013, most of the farms in Hancock County grew berries. While the number of orchards in Maine is relatively lower than the national average. Hancock County has 13 farmers markets while the U.S. County average is 3. Most of the products sold products at Hancock County’s farmers markets are animal products such as meat, poultry, seafood, eggs, and cheese. These markets have a high rate of acceptance of WIC and SNAP benefits but a low acceptance of Senior Farmers’ Market Nutrition Program (SFMNP) as compared to national averages (United States Census Bureau, 2013).

The 2017 Hunger Pains report recommended that Hancock County should:

- Preserve the federal Supplemental Nutrition Assistance Program
  - Meet the needs of increasing numbers of older Mainers as our population ages
- Bolster childhood nutrition programs in schools by:
  - Requiring high-need schools to serve breakfast after the bell
  - Investing in more summer meal sites across the state
- Invest in transportation
  - Improve public transportation options statewide and provide free or discounted bus passes to low-income people

**MDI Food Systems Organizations**

There are many organizations on MDI that are working to decrease the amount of food insecurity and increase the consumption of healthy and local food on the island.

**A Climate to Thrive (Bunly)**

A Climate to Thrive was started began with by a small group of local people including Johannah Blackman. It was open to everyone in the community who was interested in attending the meetings which happened every month. The meeting were potlucks called the Mount Desert Island Climate Solution Group. The meeting was focused on climate change and local level solutions for the community to be involved in. One solution that the group came up with was A Climate to Thrive. Then, the group
identified six focus areas, including energy, transportation, living efficiency, food systems, waste, and policy.

Today, A Climate to Thrive has six different groups working on those areas. For the energy project, the group set up an independent alternative energy goal on MDI by 2030. In the food systems project, the group is looking at the relationship between food systems and climate change. The food systems project involves three small projects: a winter farmers’ market, composting, and an educational project. The winter farmers’ market will likely partner with Healthy Acadia to make sure that people on the island have access to food through SNAP. 

For the composting project, Glenon Friedmann has been contacting students and staff at College of the Atlantic and Healthy Acadia. Through these collaborations, A Climate to Thrive will attempt to establish the composting program. Johannah is interested in working with college and high school students to gather information from other organizations on how food systems relate to climate change and what steps institutions must take in order to reduce their foodprint. In addition, within the past couple of months, Johannah conducted extensive research about food systems. Through her research she learned that the consumption of animal protein has the largest impact on the environment. Climate to Thrive decided to come up with a series of public service announcements. The first one will educate people about the environmental cost of animal protein production and consumption. Additionally, Johannah is interested in collaborating with some of the larger institutions on the island such as The Jackson Laboratory, the hospital, and the Mount Desert Island Biolab. By working with these institutions, Johannah plans to educate the community on food systems and encourage people to get involved. As a result, people will want to improve food systems on the island (Johannah Blackman, personal communication, May 3, 2017).

Healthy Acadia (Yaniv)

Healthy Acadia is an umbrella organization that works on a broad range of community health initiatives to help Hancock and Washington counties thrive. Over the past fifteen years, they have facilitated numerous collaborative community efforts with shared leadership from many sectors. In the food sector they helped to promote:

- New Farmer’ Markets providing access to fresh vegetables
- Community and school gardens increasing access to fresh, healthy foods
- A community kitchen serving hot meals to seniors and disabled citizens
- A network of 12 food pantries providing nutrition education and access to healthier foods for food-insecure families
- 25 schools purchasing fresh foods from local growers enhancing nutritional quality in thousands of meals
- Development of healthy food policies for childcare centers and afterschool programs

Since 2001, the state's Healthy Maine Partnership structure was the primary mechanism supporting the delivery of local public health services in the state, on September 30, 2016, this partnership came to an end. In the beginning of 2017, the Maine Department of Health and Human Services awarded funds for four vendors to help Maine residents adopt healthy lifestyles. These vendors chose Healthy Acadia, a non-profit organization, to be their collaborator. Healthy Acadia helps the local community by supporting initiatives such as Farm to School, Food for All, Gleaning, and more.

Farm to School (Yaniv)
Farm to School is an initiative that aims to increase nutritional education opportunities for students on MDI and support local farms and fishermen. This initiative includes the following:

- **School Supported Agriculture (SSA)** is a model that facilitates connections between farms and schools in a similar manner to the CSA model. The local coordinators organize meetings between school cooks and farmers during the spring to coordinate and plan for the fall purchasing. The SSA agreements cover the types and quantities of product to be purchased, the delivery schedule, and the best communication methods between the two parties.
- **The Apple Project** is a program for students to learn about local apples in their area. In the first session at each school, the students taste some of the locally-grown heirloom varieties of apples. Then the students discuss their own apple experiences as well as the biology and ecology of the apple tree. At the end of the first session, students are encouraged to harvest apples in their own backyards and communities. In the second meeting, the Farm to School coordinators teach the students how to make cider, the history of cider, and other uses of apples.
- **School Gardens** are courses, coordinated with Healthy Acadia, open to teachers, school cooks, and parents. In these courses the participants learn school garden management and different horticultural techniques they can teach the students. In addition, Healthy Acadia provides seed grants that help schools start or expand school gardens.
- **Directory of Food Producers** lists farmers and food producers interested in selling their products to schools and other institutions. The directory can be useful for any institution interested in purchasing local food.

**Food for All (Yaniv)**
The Food for All initiative addresses food insecurity and improves nutrition across MDI. It include seven major projects:

- **Nutrition Education Initiative** provides education on USDA nutrition guidelines to low income residents. Healthy Acadia coordinator of this initiative offers classes in nutrition, healthy cooking, and healthy grocery shopping on a limited budget to help low income households.
- **The Summer Meals Program** is a USDA nutrition program that ensures children are well fed during the summer months. In addition to providing food, Summer Meal sites provide an opportunity to teach nutrition and provide physical activity, games, and tasting contests.
- **Senior Farm Share** is a federally funded program administered by the Maine Department of Agriculture that subsidizes low-income seniors with free, locally grown produce. Healthy Acadia teaches farmers about this program and encourages them to participate.
- **Farmers Markets for All** is an initiative that helps farmers' markets become equipped to accept SNAP at their markets.

**The Gleaning Program (Yaniv)**
The Gleaning Program started as a partnership between Healthy Acadia and the University of Maine Cooperative Extension. This partnership aims to connect volunteers with farms, orchards, farmers’ markets, and other food producers and vendors to collect food that would otherwise go to waste. Since 2010, the Gleaning Program has collected and redistributed over 80,000 pounds of food throughout Hancock and Washington counties. Today there are more than thirty farms and over 200 community volunteers engaged in the program.

Hannah Semler, a COA graduate, became the Gleaning Coordinator for Hancock County in 2013. She explains that the final goal of this program is to create a partnership between the farmers and food pantries that will sustain itself and remain independent after Healthy Acadia’s coordination. The Bar Harbor Food Pantry, for example, reached such independence during the summer months they gleaned fresh produce for their needs.

Healthy Acadia focuses on fresh vegetables and not on restaurant leftovers because their mission encourages nutritious food consumption among low socioeconomic families. In addition, gleaning has more advantages than just feeding people who are food insecure; gleaning is a group effort so it helps to form a stronger community. The gleaning activity provides opportunity for volunteers to exercise, connect with nature, and form new social groups.

Morgan Heckerd, a COA student who coordinates the school’s gleaning program, explains that gleaning helps food pantries reach independence. Many food pantries get their food products from big corporations such as Coca Cola, Monsanto, and ConAgra Foods. As a result, the food pantry develops a dependence on the cooperation that determines the kind of products the food pantry gets and the amount. By gleaning and receiving food from local farmers, food pantries can offer healthy and fresh produce, advocate sustainability and “fight the big corporations”.

Semler’s ultimate goal is that gleaning will become an integral part of our everyday life. She hopes that one day doctors will prescribe patients participation in a gleaning event as part of their treatment. She hopes that different gleaning events will help people who have mental, social, or physical problems to recover. For example, a slower paced gleaning can be beneficial for older people, while “competitive gleaning” may interest and inspire young teenagers with social difficulties.

Semler states that most of the produce gleaned on MDI today is going to Ellsworth because there is not enough demand for fresh produce from the local food pantries. In order to make the MDI food systems more local, Semler is working with Anna Davis from Beech Hill Farm (BHF) to develop a commercial kitchen in BHF that will process and preserve surplus produce. This will help to create MDI food systems more local (Hannah Semler and Morgan Heckerd, personal communication, May 12, 2017).

**Bar Harbor Food Pantry (Yaniv)**

The Bar Harbor Food Pantry has been serving the MDI community since 1994. Before that, it operated on an emergency basis in the basement of the First Baptist Church. Today with the support of local churches, community organizations, business, and individuals, Bar Harbor Food Pantry helps feed more than 300 households—equalling over 800 individuals across Hancock County each year.

The Bar Harbor Food Pantry partners with Good Shepherd Food Bank (the state of Maine’s largest food relief agency). The pantry also qualifies for government support of 5 free shipments of food each year from the US Department of Agriculture.

**Restaurants (Lydia)**

Havana is a popular restaurant in Bar Harbor that focuses on local and sustainable ingredients. The following information is listed on Havana’s website:
Since opening sixteen years ago, we have been committed to serving local and organic meats, produce and seafood. We constantly search out New England farmers and fisher folk to purchase products that are not only great tasting, but great for the environment and local economy as well. We operate an in-town organic garden on a reclaimed "urban" plot and also have our own full farm plot that we farm for greens, vegetables, etc. in Salisbury Cove, just outside of Bar Harbor. Havana uses only All Natural/Humanely Raised chicken, eggs and beef. "All Natural" means no steroids or Hormones. We use only fresh, local, cage-free and certified organic eggs. Havana has eradicated the use of Polystyrene Foam, started recycling programs, installed efficient lighting and cut down on water usage” (Havana website).

Fork and Table is a small restaurant in Northeast Harbor that focuses on local and sustainable ingredients. The following description is written by the chef and owner, Katelyn Moore,
The Fork & Table is Chef Owned farm to table bistro located in the heart of downtown Northeast Harbor Maine. The Menu will be customized weekly based on what is in season. All menus are inspired by Maine with the belief that buying local Maine ingredients is not only healthy and better to consume, but helps the farms of Maine sustain. (Katelyn Moore)

Farms on MDI

Sweet Pea Farm (Bunly)
Matt Gerald owns Sweet Pea Farm and is president of the summer farmers market in Bar Harbor and Northeast Harbor. On the farm Gerald grows flowers, vegetables, (namely tomatoes and cauliflower, and raises chickens for eggs. His farm is not certified as an organic farm, but he practices organic and sustainable farming methods. Gerald sells most his produce at the farmer’s market, to local restaurants, and to flower shops. He distributes some of the produce with cosmetic flaws to Bar Harbor Food Pantry and Common Good in Southwest Harbor.

In the summer, Gerald organizes the summer market in Bar Harbor and Northeast Harbor. The farmers market in Bar Harbor is located at the YMCA Parking Lot. In Northeast Harbor, the market is located at the Harbor Drive on the town green. The farmers’ market in Bar Harbor opens every Sunday from May 11th to October 26th. The farmers market in Northeast Harbor opens every Thursday from June 26th to August 28th. In each location, at least 20 different vendors from a diverse range of New England locations as well as from Mount Desert Island sell their produce. Farmers can register to become a member of the summer farmers’ market online and join a meeting that happens in the winter. All the farms registered in the program do not have to be organic. Gerald noted that many of the farms distribute some of their produce with cosmetic flaws to Healthy Acadia, Bar Harbor Food Pantry, and Gleaning.
(Matt Gerald personal communication, May 9, 2017).

Beech Hill Farm (Lydia)
Beech Hill Farm describes itself as,

A working farm growing fresh vegetables and raising meat for COA and the wider community. Collaborative work and planning between Beech Hill Farm and the kitchen is helping COA to ‘close the loop,’ forming a more sustainable system of food production and consumption. In addition to providing locally and sustainably raised meat and produce to COA, Beech Hill Farm operates a seasonal farm stand, offers a CSA program, and sells to local markets and restaurants.
Beech Hill Farm provides educational opportunities to COA students and community members through our work study program, independent projects, class visits, events and workshops.

The land for Beech Hill Farm was acquired through a conservation easement arranged by the Maine Coast Heritage Trust in 1999. The purpose of the easement is,

To provide a significant public benefit by protecting and preserving the highly scenic and open views of and across the protected property enjoyed by the public from the Beech Hill Road; and to prevent the conversion of open lands on prime agricultural soils to development or other land uses that would limit their productivity and availability for agricultural uses in the future (COA website).

Because of its small size, Beech Hill seeks out local markets, and sells to COA, farmstand shoppers, John Edwards, 86this!, A and B, Morning Glory, Burning Tree, Pemetic Elementary, MDI High School, Thrive Juice Bar, Sawyers Market, Rogue Cafe, Sassafras Catering, Red Sky. Beech Hill has a small CSA share and sells food through Share the Harvest. An interview with Anna Davis, Beech Hill Farm Manager revealed the advantages of local markets as having incredible marketing potential during the summer months. She also noted that “it’s very hard to maintain year round sales with our seasonal economy.” Anna is also working with other MDI growers to create a winter farmers market (Anna Davis, personal communication).

**Peggy Rockefeller Farm (Bunly)**

Peggy Rockefeller Farm (PRF) is another College of the Atlantic's farm. It is a livestock farm with a small vegetable garden, some apple and peach trees, and berries. The farm is certified as an organic farm. Since the farm was donated to the college in 2010, it has been changing over time. Since C.J. Walke, the farm manager started working at the farm in 2012, the farm has been changing and increasing amount of animals. The farm used to have 6 sheep. The next year, he bought couple more when he got the budget from COA. In 2014, he got a grant funding, so he bought more sheep. Today, the farm has the total of 39 sheep, 6 cattle, about 70 egg laying chickens, 450 meat chickens, about 100 turkeys. The farm also has half an acre of vegetable garden including apple trees and strawberries. In the garden, C.J. grows some cherry tomatoes, potatoes, winter and butter squashes, garlics, and dried beans.

As Beech Hill Farm (BHF) produces mostly vegetables, PRF produces meats production and small amount of vegetables that BHF does not grow. C.J. also produces some hay and compost at the farm for his own use and BHF’s use. C.J decides what he wants to have and how many animals he wants based on how many animals he has currently at the farm as well as how can he manage with the size of the land and number of worker. The college provides a budget to C.J. to spend on everything that he needs for the farm. Some of the budget is from the operation of what C.J sells to the college kitchen (TAB).

Every year, the farm produces different amount and kinds of production for the college. Last year, the farm produced between 60% and 70% of the production for (TAB). The rest of the produce sold at the farm stand at Beech Hill Farm over the summer time. About 5% sold directly from the farm.

Every year, when the growing season is coming up in March, C.J., Beech Hill Farm manager, Anna Davis and the kitchen managers, Ken and Lise set up a meeting in COA to discuss about what produces do Ken and Lise want from the farms. C.J. and Anna Davis also negotiate what kinds of vegetables each farm should grow, so they do not grow the same thing. In November, C.J., Anna, Ken and Lise set up a meeting again to discuss how thing went and want to do differently in the next year.

C.J delivers eggs to TAB every week, and other produce depending on what the kitchen wants. C.J usually brings either chickens or lambs every other week. Last year, TAB bought meat of a whole
cow, so C.J brought it to TAB. Ken and Lise can use and store some of the meat to use over the winter. Typically, Ken and Lise ask C.J if he has certain amount of lambs or other meat when they need. Sometimes, C.J tells Ken and Lise that he has this or that, so Ken and Lise can use it up. In the summertime, C.J. does not really sell much produces to the college because the produces are harvested until October.

C.J. sold small amount of garlic and squash to A&B. Last year, he sold beef of a whole cow to Havana restaurant. In the same year, he gave some tomatoes to Healthy Acadia. Besides selling to COA and local store, C.J. distributes some produces to some organizations and a church. Last fall, he sold winter squash to the Good Shepherd Food Bank and distributed 250 lbs of squash to 3 different food pantries in Ellsworth. In the past, he distributed some eggs to Bar Harbor Food Pantry. For the future, C.J. plans to distribute more produce to Bar Harbor Food Pantry. He also plans to produce more efficiently with various vegetables and meat production and figure better and more sustainable methods to produce high production (C.J. Walke personal communication, May 24, 2017).

**Bar Harbor Community Farm (Yaniv)**

The Bar Harbor Community Farm (BHCF) was initiated in 2009 by Glenon Friedmann and Rose Avenia. At first, they leased ½ an acre of farmland from Mr. Minskin and had six Community Supported Agriculture (CSA) members. CSA is a system where people pay monthly fee or volunteer in the farm and in return they get fresh vegetable and produce from the farm. By the end of the first year they had 20 CSA members and an agreement with the Jordan Pond House restaurant.

In 2011 they certified their produce as organic with Maine Organic Farmers and Gardeners Association (MOFGA), and in 2013 the Maine Coast Heritage Trust helped Rose and Glenon to purchase the land of Gilbert Farm which used to be one of the biggest on the island. The Gilbert Farm is 40 acres, 10 of which are available for farming. Subsequently, they received a grant to build a high tunnel passive greenhouse.

Today the BHCF is farming over 3 acres: 2 on Gilbert Farm and one acre on Mr. Minskin’s field. They have 115 CSAs and work with local restaurants such as Rosco’s at Jackson Lab and the Asticou restaurant. In addition, there are 12 small business that supply their employees with the BHCF vegetables. These businesses include the Food Hub, Acadia National Park, Breaking Even, and the Town of Bar Harbor.

Friedmann and Avenia try to operate their farm as sustainably as possible and in order to reduce waste they donate their excess food to Food for All, Food Pantry, and Healthy Acadia. The vegetables that are damaged by pests are composted or fed to the chickens.

Apart from donating produce, the farm is very involved in the community, and Glenon is part of the Climate to Thrive food group. Last summer, the BHCF collaborated with the Maine Coast Heritage Trust to bring teenagers from the local MDI High school to do an apprenticeship on the farm but because of low interest the collaboration did not succeed as the two organization hoped. Therefore, the BHCF is thinking of new ways to attract younger generations; for example, they are hoping to apply for a grant that will allow them build a farm stand that will sell their produce. This will be an opportunity for the local teenagers to gain some entrepreneurship experience and the BHCF will gain enthusiastic workers. In addition, last fall the local kindergarten children came to pick up pumpkins and special education students came with their coach to practice farming.

The BHCF is interested in sharing the knowledge they have gained and learning from other farmers. Which is why they are having a potluck with Anna Davis the Beech Hill Farm Manager, C.J. Walk, the Peggy Rockefeller Farms Manager and the Smith Farm managers to “share experiences, learn from each other and complaint together about the difficulties” (Glenon Friedmann, May 10, 2017).
To reduce waste on the island, the BHCF and Climate to Thrive organized a home composting event on April of 2017. In this event, they explained about the importance of compost and even sold 45 compost bins in the community.

In the future, Avenia hopes to host “healthy cooking workshops” to encourage a healthy and nutritious diet among the Bar Harbor residents. Since Rose and Glenon are getting old they are currently looking for younger farmers who will continue their farm. They hope to find a nice couple that will get involved in the BHCF work and eventually will manage their farm (Glenon Friedmann, personal communication, May 10, 2017).

**COA Food Systems**

**Real Food Challenge (Lydia)**

Two student representatives from COA, Mako Mihira and Sibia Inay Ortega, attended a Real Food Challenge conference in 2017 to look at COA's food sustainability compared to the Real Food Challenge guidelines. The Real Food Challenge leverages the power of youth and universities to create healthy, fair, and green food systems. The real food challenge guidelines encompass the entirety of the food system; including climate, animals, natural resources, access, health, celebration, economics, control, education, culture, farmworkers, food chain workers, ranchers and fisher folk.

The students found that,

College of the Atlantic, with its self-operated dining hall system, has amazing practices that other universities in New England felt inspired to learn about. Not only the food system, but also student participation with faculty and food managers is also part of the positive characteristics of College of the Atlantic. We left the summit hopeful that with collaboration and cooperation, College of the Atlantic can go further and continue to strive for a more connected food system that benefits more local producers and thus consumes less from a system that not only harms the environment but also has denigrated humans in the history of the United States food systems (Mako Mihira and Sibia Inay Ortega, personal communication, May 3, 2017).

Some recommendations made by the students who attended the conference include,

Food can be discarded less if there is better communication among New England's producers, vendors, and consumers (including any kind of institution that buys food in big quantities, but mostly hospitals, prisons, and educational institutions such as schools and universities)”. And “In a period where humans have greater demand for certain food products, it is important to start consuming non-traditional food sources such as in the case where mainstream fish is being over consumed and people need to start eating less popular (i.e. overharvested) fish species (Mako Mihira and Sibia Inay Ortega, personal communication, May 3, 2017).

Overall, COA does very well as an institution when examined under the Real Food Challenge principals. The students who attended the conference are looking to increase the sustainability of COA's food systems, and the COA food group is working on creating a more sustainable meat policy for the college.

**Food Group (Yaniv)**

COA's food sub-committee is working on an Animal Protein Policy which aims to help the school to purchase more local food and sustainable animal protein products. The committee is collaborating with the real food coordinators to gather information about the school’s current consumption patterns and
resources. During the winter term of 2017, the sub-committee conducted a survey that revealed that 92% of COA students would be willing to reduce meat consumption if TAB served only meat from farms. The survey also showed that 84% of COA students would be willing to reduce meat in TAB overall in order to have more seafood. COA used to serve only vegetarian food for many years, and the food sub-committee believes that animal protein consumption in COA could be reduced and the food system could be transformed into a more sustainable one. The committee is hoping to complete the policy by fall 2017. After COA adopts the policy, the committee hopes to share the concept of the report with other local institutions such as MDI high school and organizations such as A Climate to Thrive.

**Conclusion**

In the past 10 weeks, we have learned that the food system on MDI is very complex, and involves many participants. Through our interviews with local MDI residents, we have expanded our understanding of the different components and influences of the food systems on MDI. We learned that MDI has many interesting projects that are put in place to combat the challenges of our modern food systems. When we met with the Climate to Thrive, we learned the importance of group meetings, as there are many people with similar goals regarding a sustainable food system on the island. We saw how brainstorming with people from different backgrounds can result creative solutions for different problems.

Producing and supporting local food is very important because it benefits both people in the community and local farmers. Local food, depending on how it is produced, is generally healthier for the people consuming and producing it. Purchasing local food at a fair price to the farmer and consumer keeps money circulating in the local economy, which in turn benefits the society as a whole. When the community supports local food production, local farmers have less market competition with industrial farmers or imported products. COA supports many local, sustainable, and organic producers. Other large institutions on MDI including the Mount Desert Island Bio lab, the Jackson Laboratory, the high school and the hospital could follow COA’s model. One institution makes only a small difference; if more institutions get involved in the food system, we can combat food insecurity and environmental degradation more efficiently.

We believe that COA should take a bigger role in the MDI food systems. It is important that the knowledge we gain from our experience will be shared with other institutions and organizations in order to encourage sustainable food practices on the island. A partnership between COA and other organizations such as Climate To Thrive and Healthy Acadia can be mutually beneficial. These organizations often have great projects that can be converted and used as class assignments.

We decided to create a table that shows the various courses that are offered in COA in the coming year and suggest different food system projects that could be beneficial for both the students and the important work of the organizations on MDI.

**Suggested Courses for Collaboration (Yaniv)**

<table>
<thead>
<tr>
<th>Professor</th>
<th>Course</th>
<th>Term</th>
<th>Possible student project related with local Food systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrews</td>
<td>Documentary Video Studio</td>
<td>Winter 18</td>
<td>Documentary about the farms- use to adverize</td>
</tr>
<tr>
<td>Name</td>
<td>Course</td>
<td>Term</td>
<td>Description</td>
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<td>----------------------</td>
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</tr>
<tr>
<td>Nancy Andrews</td>
<td>Intermediate Video: Studio and Strategies</td>
<td>Spring</td>
<td>Advertisement about food systems, raising awareness</td>
</tr>
<tr>
<td>Dru Colbert</td>
<td>Graphic Design Studio I</td>
<td>Fall 17</td>
<td>Posters about animal protein, educating for sustainable food consumption. The poster can be made for various audiences</td>
</tr>
<tr>
<td>Mancinelli</td>
<td>Land Use Planning I</td>
<td>Spring</td>
<td>Finding ways to increase local food productions, encourage victory gardens in Bar Harbor, show projects of how to use land more effectively in term of agricultural methods</td>
</tr>
<tr>
<td>Winer</td>
<td>Intro to Photography</td>
<td>Fall 17</td>
<td>Food photo journal- a visual documentary of the food waste in COA/Hannaford/Jackson Lab/ etc.</td>
</tr>
<tr>
<td>Benson</td>
<td>Organic Chemistry II</td>
<td>Fall 17</td>
<td>Pesticides leftover on non-organic fruits and vegetables.</td>
</tr>
<tr>
<td>Hall</td>
<td>Rocks &amp; Minerals</td>
<td>Winter</td>
<td>Mapping different soil kinds on MDI and recommending on crop productions according to the specific soil</td>
</tr>
<tr>
<td>Suzanne Morse</td>
<td>Weed ecology</td>
<td>Fall 17</td>
<td>Increase public awareness for the culinary uses of weeds- increase foraging on MDI</td>
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<tr>
<td>Morse</td>
<td>Seeds</td>
<td>Fall 17</td>
<td>Start Seed Bank/Library on MDI</td>
</tr>
<tr>
<td>Morse</td>
<td>Art &amp; Science of Fermented Foods</td>
<td>Winter</td>
<td>Teach how to preserve food to decrease food waste</td>
</tr>
<tr>
<td>Borden</td>
<td>Personality and Social Development</td>
<td>Winter</td>
<td>Food as a social activity, Bar Harbor community dinner as way of community building</td>
</tr>
<tr>
<td>Cline</td>
<td>Introduction to the Legal Process</td>
<td>Winter</td>
<td>Food laws on MDI- left over distributions and farm practices on public lands</td>
</tr>
<tr>
<td>Kourtney Collum</td>
<td>US Farm and Food Policy</td>
<td>Fall 17</td>
<td>Educate the larger community about food policies</td>
</tr>
<tr>
<td>Collum</td>
<td>Livestock Management</td>
<td>Winter</td>
<td>Product of this class could later be used by people from the MDI community</td>
</tr>
<tr>
<td>Collum</td>
<td>Farm Planning (tt/Davis)</td>
<td>Spring</td>
<td>Product of this class could later be used by people from the MDI community</td>
</tr>
<tr>
<td>Collum</td>
<td>Bees and Society</td>
<td>Spring</td>
<td>PSA about pollinators</td>
</tr>
<tr>
<td>Friedlander</td>
<td>Business &amp; Non-profit Basics</td>
<td>Fall 17</td>
<td>Recommendations to make restaurants/ food markets etc to become more local and sustainable</td>
</tr>
<tr>
<td>Name</td>
<td>Course</td>
<td>Term</td>
<td>Description</td>
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<tr>
<td>Friedlander</td>
<td>Hatchery</td>
<td>Spring 18</td>
<td>Hatchery related with food system</td>
</tr>
<tr>
<td>Little-Siebold</td>
<td>History of Agriculture: Apples</td>
<td>Fall 17</td>
<td>Make the apple map public and allow people on MDI to harvest unused apples in people's backyards</td>
</tr>
<tr>
<td>Levin</td>
<td>Introduction to Journalism</td>
<td>Winter 18</td>
<td>Write articles about winter farmer markets and other food related projects</td>
</tr>
<tr>
<td>Longsworth</td>
<td>GIS I: Foundations &amp; Applications</td>
<td>Fall 17</td>
<td>Create an interactive map where people exchange space (unused back yard) and allowing other people to farm and compost in their backyards</td>
</tr>
<tr>
<td>Davis Taylor</td>
<td>Economics of Cooperation, Networks &amp; Trust</td>
<td>Spring 18</td>
<td>Co-ops and food pantries research</td>
</tr>
</tbody>
</table>

**Resources**


Matt Gerald. Personal communication, May 9, 2017.

Moore, Katelyn, fork and table. Email communication, May 7, 2017.

Semler, Hannah and Morgan Heckerd, personal communication, May 12, 2017.
