# **Undergraduate Sustainability Literacy Institute Ambassador Program**

The goal of the Undergraduate Sustainability Literacy Institute (SLI) Ambassador Program is to allow undergraduate students the opportunity to become engaged as an undergraduate leader for the SLI. Students will serve as ambassadors, representing the SLI in their respective classes and campus organizational involvement. Students will also have an active role in organizing and running SLI events on campus and within the community.

Ambassadors are required to fulfill the following minimum expectations:

- 1. Commit to serving on the student advisory subcommittee to the Quality Enhancement Plan "Sustainability Literacy Institute as a Bridge to Addressing 21<sup>st</sup> Century Problems" and to provide feedback to the QEP director on the ongoing development and implementation of the QEP
- 2. Attend ambassador orientation (date TBD)
- 3. Attend ambassador monthly meetings (average of 3-4 per semester)
- 4. Write one blog post contribution each semester
- 5. Participate in one activity of over 3 hours in duration during the course of the semester (such as Sustainfest, outreach, community service, assisting Graduate Assistants or Fellows as needed)
- 6. Participate in two activities of less than 3 hours during the course of the semester (such as tabling, outreach, assisting Graduate Assistants or Fellows)
- 7. Serve as a SLI representative across campus in the undergraduate community
- 8. Ambassadors are expected to conduct themselves in a professional manner when representing The Sustainability Literacy Institute.

The Sustainability Literacy Institute Undergraduate Ambassador Program has a rolling application process. Students are encouraged to apply early in the fall and spring semesters. Qualified candidates are invited for an in-person interview. The number of applicants accepted is dependent upon the number of positions available.

#### **How to Apply:**

Interested students are asked to complete an application that includes the following items:

**Application Includes:** 

- Statement of Purpose
- Basic Demographic Information

**Supplemental Documents:** 

- Academic Transcript
- Resume

The application can be picked up and returned at Randolph Hall Suite 206. Incomplete applications will not be considered.

For more information please contact  $\underline{levasseurtj@cofc.edu}.$ 

# CofC Sustains/Solves theme for 2019-2020: Food Security

Living organisms need food energy to function and remain alive. These calories power all metabolic activities, from cellular level processes, to growth, respiration, reproduction, and play. Although the food calories we consume are produced directly or indirectly by photosynthetic organisms (i.e., vegetable, field, forage, or pasture crops, and ocean-based food chain products), land-based plants are impacted by and depend upon other organisms in the environment that live both above and below the ground including fungi, bacteria, insects, and other animals (some microscopic and others very large). The success of this interdependent menagerie of plants and animals is in turn dependent upon suitable abiotic environment conditions that include moderate temperatures, abundant fresh water, clean air, and sufficient nutrients. This is the context within life exists. Although largely unseen, unrecognized, and underappreciated, humans depend upon the stability of land, water, and sky, and the biodiversity they support, for every meal.

The foundation of human diets is built on consumption of fats, proteins, carbohydrates, and trace minerals. But how we obtain those, and in what ratios, varies with cultures and through history. Most contemporary humans meet their nutritional requirements through species domesticated via agriculture, but some humans get them from gathering/hunting regimes and others from fishing. Historically humans developed and benefitted from what is called "traditional ecological knowledge" to hunt, fish, and gather in order to get food calories. However with the onset of the Agricultural Revolution about 10,000 years ago humans began to domesticate plants and animals for use as food. Mechanization that took root during the Industrial Revolution, and later development of dwarf and hybrid varieties of cereal crops during the Green Revolution of the 1940s to 1970s, combined to give birth to an industrial form of agriculture that depends heavily on fossil fuels and increasing amounts of chemicals (pesticides, herbicides, fungicides). Animal-based agriculture has become similarly industrialized and today concentrated animal feedlots dominate animal agriculture which contributes disproportionately to anthropogenic climate change. 

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Our modern industrial food system is very brittle—it lacks resilience because it relies on monoculture farming and chemical inputs; a vast distribution system; and a centralized marketing and retail system. Overall this food system is not sustainable, as it literally cannot continue for much longer. Some facts attest to this:

- To get 1 calorie of food requires about 10 calories of energy, with most of this energy coming from nonrenewable fossil fuels.
- With each 1 C rise in global temperature yield of some important cereal crops are predicted to produce 10% less yield, all while global population is predicted to grow from 7.6 billion to 9-11 billion by 2100.
- We use fossil water (for example, the Ogallala aquifer in the Midwest) to grow this food, where globally rates of aquifer drawdown are rapidly increasing.
- 1 in 9 people experience chronic hunger. That's 821 million individuals worldwide. And 1 in 4 of those are children.

<sup>&</sup>lt;sup>1</sup> http://www.fao.org/3/a0701e/a0701e.pdf

- In the U.S., 40 million people are at risk of hunger, and 12 million of those are children. Many of these live in food deserts, without minimal access to fresh, nutritional, and/or culturally appropriate food items.<sup>2</sup>
- Worldwide, 1/3 of all food is wasted.
- By 2050, agricultural productivity losses due to increased temperatures are estimated to increase hunger and malnutrition by 20 percent.
- 2/3 of the arable land in Africa could be lost by 2025 due to climate change
- By 2030, climate change could push food prices up by 50 to 90 percent.
- Hotter sea water temperatures are expected to reduce fish catches worldwide by 40 percent.
- 13.5 percent of all South Carolinians are food insecure.
- In one year (2016 to 2017), chronic food deprivation throughout the world rose from 804 million people to 821 million.
- As of 2016, about 815 million people of the 7.6 billion in the world were suffering from chronic undernourishment.
- According to worldhunger.org, the world produces enough food to feed everyone, yet unequal income distribution in specific countries is the primary cause of hunger.
- An estimated 60 percent of the world's hungry are women or girls.
- Socialized ideal body types impact the well-being of all—men are seen as "unmanly" unless they eat meat and they must have big muscles; women must fit certain idealized body types, with social pressures to conform to these body types contributing to anorexia and bulimia.<sup>3</sup>

The below infographic from Oxfam<sup>4</sup>, one of the world's leading non-governmental organizations devoted to ending poverty with a special focus on food security issues, represents many of these issues. Oxfam defines food security as "when all people at all times have access to sufficient, safe, nutritious food to meet their dietary needs for an active and health life." This is important as "all people" must include children, the elderly, pregnant mothers, and those minoritized by existing social structures: women, people of color, indigenous/first nations peoples, peasant farmers, and LGBQT+ communities, especially transgendered peoples who disproportionately suffer from food and housing discrimination.

This snapshot of food and agriculture strongly suggests that approaching food security for all humans, and doing so via resilient agriculture that rebuilds soils, doesn't exhaust limited water supplies, leads to seed diversity, and allows for habitat to exist for nonhuman others, is a pressing 21st century problem. Creating a just, sustainable, secure food system will require CofC students to learn about how to impact nested and interconnected social, environmental, and economic systems and to advocate for humane, equitable, sustainable solutions to ongoing and future food security issues.

<sup>&</sup>lt;sup>2</sup> http://americannutritionassociation.org/newsletter/usda-defines-food-deserts

<sup>&</sup>lt;sup>3</sup> https://news.illinois.edu/view/6367/206777; https://journals.sagepub.com/doi/full/10.1177/2378023119831801

<sup>&</sup>lt;sup>4</sup> https://www.oxfamamerica.org/take-action/save-lives/infographic-food-security-to-famine/











### **FOOD INSECURITY**









### **ACUTE FOOD AND** LIVELIHOOD CRISIS

When there is a critical tack of access to food coupled with high levels of acute malnutrition—or when people can meet minimal food needs only by selling essential possessions.



10-15%

of the population is acutely malnourished



serious interruption to the means of earning an income



7.5-15 liters of water per person per day



Unable to meet 2,100 calories per person per day without extreme measures; limited food choices

## **HUMANITARIAN EMERGENCY**



15-30%



critical and irreversible 4-7. interruption to the means per of earning an income





<2,100 calories per person per day; access to 3 or fewer food groups

#### FAMINE

When people face a complete lack of access to food and other basic needs and experience mass starvation, death, and destitution,



of the population is acutely malnourished



complete loss of the means of earning an income



<4 liters of water per person per day



To learn more about food crises and how droughts, conflicts, and other hazards can trigger them, visit OXFAMAMERICA.ORG/HUNGER.



An extreme shortage of calories per person per day; access to 1-2 food groups





Artists (left to right):

Maddie Centracchio '19

Anna Todd '19

Danielle Dungo '19

Amy Hyman '19

In Fall 2018, the students in the QEP sustainability-related Painting IV course at the College of Charleston created this series of four paintings as a visual expression of 21st Century sustainability issues. They discussed the meaning of the CofC Sustains/Solves theme for the 2018-19 Academic Year: Social Justice and Fair Distribution. What does this mean? How are they connected? What is the role of art/artists in advocacy and communication to a broad audience? What issue was most pressing, relevant, and ripe for visual exploration?

The students decided that with so many issues that were equally pressing, thinking on a local level would help. It was agreed upon that sea level rise was the most imminent threat to a sustainable Charleston and would have a disproportionately negative effect on lower-income citizens. Sea level rise is an issue not just of climate, but of social justice. Access to safe housing, food, and water were all concerns. Through brainstorming, they began to focus on root causes of climate change and sea level rise. The production of plastics, overconsumption and a throwaway culture were cited as parts of the issue. The students decided to portray recognizable consumer goods, especially those consumed by college students and often tossed aside. It was agreed that among their peers, there seemed little consideration about where and how these goods were produced and where they went after being consumed.

These four paintings were created with the intent to combine humor, repulsion, and a visually seductive painting language with a serious message. They use the language of the iconic object in pop culture much like Warhol: equal parts acceptance at their own culpability, an ironic look at consumer culture, and critique of the society in which we live. As such these paintings serve not to preach a value, teach a lesson, or repulse. Rather they seek to engage the viewer in reflection, critical thought, and perhaps they will encourage discussion and change of personal habits and consumer choices, where these have hidden and externalized social and environmental costs.