Challenges of a Sustainable Food System

Our Unsustainable Food System

These TED Talks (www.ted.com) and brief FAO article explain the current unsustainable food system and the issues that have contributed to its creation. These resources clarify the “bigger picture” of the food system, creating opportunity to discuss how it is unsustainable, how we find ourselves in this situation and what steps should be taken to create a sustainable food system.

Jonathan Foley: The other inconvenient truth (17:46)

- **Introduction:** In his Ted Talk, Jonathan Foley summarizes the state of the food system, showcasing the negative consequences of large scale agriculture on Earth while asking the big questions: How do we feed the world without destroying it? How do we feed a human population set to hit 9 billion people by 2040 on an ecologically weakened planet undergoing unprecedented (in human history) climate change using fewer fossil fuels?
  
  - [http://www.ted.com/talks/jonathan_foley_the_other_inconvenient_truth.html](http://www.ted.com/talks/jonathan_foley_the_other_inconvenient_truth.html)

Mark Bittman: What’s wrong with what we eat? (20:03)

- **Introduction:** Mark Bittman’s talk illustrates how what humans eat doesn’t just affect their bodies; it is stressing the planet to its ecological limits! Bittman suggests our addiction to meat is the biggest culprit and we must change what we eat and shift how we value and think about food.
  


- **Introduction:** This short FAO article addresses the relatively unknown and under addressed issue of domesticated crop extinction. The FAO estimates 75% of crop diversity was lost between 1900 and 2000. A genetically diverse crop bank has historically been used to cope with environmental stresses including drought, pest and disease outbreaks, and increases in salinity and have been used to create higher-yielding, faster growing crops. Considering the uncertainty surrounding future weather and pest and disease patterns associated with climate change, genetic diversity in domesticated crops is of paramount importance for sustaining a human population estimated to reach 9 billion people by 2040.

Discussion Qs:

- Based on the issues addressed in the above talks, how is our campus contributing to the unsustainable food system?
- What is our school doing to create a sustainable food system?
- What are some simple changes our campus can make to help create a more sustainable food system?
  - What is the first step in making these changes a reality?
Additional Food for Thought...

The University at Buffalo’s Dr. Samina Raja, world renowned for her work exploring food security issues in the US and the founder of the only food systems planning research lab in the US, has outlined eight reasons why our current food system is, as she says, “broken”. Additionally, Dr. Raja has provided five ideas for creating sustainable food systems on University campuses. Dr. Raja’s insights are explored in the following text.

What’s wrong?

1. Where are all the processors and distributors?
   - Dr. Raja has metaphorically compared the number of farmers, processors and distributors, and retailers in New York to an “hourglass”. The many farmers in the top portion of the hour glass feed into a very small pool of processors and distributors in the middle, constricting the ability of local produce to get to the many retailers (and subsequently consumers) in the large, bottom portion of the hourglass. This constriction hinders the progress of the local food economy. Food is being grown locally but most is not making it through the very narrow portion of the hour glass (processors and distributors) and therefore must be processed and distributed by other means.

2. Farmers don’t receive enough money!
   - Simply put, farmers only receive 12 cents on the dollar. So, for instance, for every dollar worth of beans that are sold, the farmer that grew those beans receives only 12 cents. This skewed revenue distribution acts not only as a barrier of entry to local markets but also as a barrier of entry to individuals attempting to join the farming side of the local food industry.

3. Where is fresh food distributed?
   - There is an increasingly evident disparity between different races and social classes and the exposure to fresh foods they received. As a generality, a white individual is much more likely to be exposed to fresh foods and less likely to be exposed to traditional “junk foods” whereas a black individual is much less likely to be exposed to fresh foods and much more likely to be exposed to traditional “junk foods”. This trend holds true based on income level as well. The statistically “poor” are much less likely to be exposed to fresh foods and much more likely to be exposed to “junk foods”.

4. Marketing is where the money is.
   - There is a stunning amount of money spent on marketing food in comparison to food education. Just three companies, the makers of Coke, M&Ms and Wrigley gum, spend $371,400,000 in marketing per year whereas the entire food education campaign struggles to reach $300,000,000. This creates an artificial demand for products that your body doesn’t need while simultaneously decreasing the effectiveness of food educational campaigns.
5. **Profit over health**
   - Amazingly, there is an overarching trend where highly nutritious foods realize low profits whereas low nutrition foods are highly profitable. So, companies are making more money selling food people’s bodies are essentially unable to use than companies selling foods that ensure a healthy body and mind.

6. **Detrimental environmental effects**
   - Simply put, the practices used to grow food aren’t sustainable in the least. Current techniques are causing biodiversity loss on a continental scale and are generally dependent on large inputs of petrochemicals, herbicides, pesticides and fungicides resulting in non-point source pollution. Amazingly, agriculture and associated activities account for 30% of the world’s carbon emissions. Growing food is destroying the ecological integrity of the planet.

7. **Where are the fruits and veggies?**
   - People aren’t eating nearly enough fruits and vegetables. This trend is taking its toll on public health. Obesity is now considered an epidemic by the Centers for Disease Control and Prevention. The Surgeon General warns that obese individuals have a 50 to 100% greater risk of premature death than those that are not obese yet US obesity percentages are consistently among the world’s highest.

8. **Who is tackling the issues?**
   - Well, to answer the question above, no one. No one is taking the responsibility of mending the food system in its entirety. Even with growing movements like Locavore, Organic, and Slow Food, there isn’t enough attention being paid to the system as a whole and the minutia that are so important to a functioning sustainable food system like ample processors and distributors!

**A solution?**

The broken food system can seem overwhelming. However, there are concrete steps you can take to heal our school’s food system. Dr. Raja has outlined five ideas to do just this.

1. **Integrate the campus’ food system**
   - Take the landscaping budget and use it to plant edible plants around campus. The campus will be beautiful and edible! Edible landscaping also serves as an educational tool for the administration, faculty, students, and community.

2. **Demonstrate food sustainability on campus!**
   - Secure a considerable amount of land on campus for a farm; not just a garden. The farm is an educational tool and produces a considerable amount of food! In addition to securing land for a farm, acquiring as much food as possible from within 30 miles demonstrates an ambitious and necessary commitment to sustainability.
3. Educate, educate, educate!
   - Education is an amazing tool. However, it can be even more effective if you educate the right people first to ensure the push for a sustainable food system is effective. Dr. Raja suggests educating the administration, faculty, students, and then community, in that order. Decisions are made by the administration and then cascade downward. Gaining administrative and faculty buy in can mean the difference between a successful and unsuccessful sustainable food system campaign.

4. Assessment
   - Assessing the sustainable food system movement on campus is extremely important. An assessment provides crucial information for gauging progress, showcasing improvements, discovering trends, and identifying potential issues. When measuring, make sure you use tangible measurements! Simplicity and clarity are extremely important.

5. Sustaining the sustainable food system?!
   - None of your work will matter if the “sustainable food system” breaks down, rendering it...unsustainable. Make sure there is accountability to the system throughout the administration, faculty, students, and community. This increases the probability that the sustainable food system will become an indispensible part of campus and the surrounding area.

What can you do?

1. Be an informed consumer and support local food producers, processors, and distributors.
   a. Push to leverage our campus’ predictable food purchases and enter into purchasing agreements to buy food that is grown, processed, and distributed locally in an environmentally and socially responsible manner.
   b. Purchase less meat

2. Grow your own food
   a. Work to establish a garden and/or farm on campus to help supplement local food orders. The garden/farm should represent an attempt to balance considerable food production with a robust and healthy garden ecosystem.

3. Promote healthy student eating habit patterns through education and improved on-campus access to healthy and ecologically sustainable foods.
   a. Increase the availability of fresh vegetables and number of vegetarian options.
   b. Purchase/consume meat only to ensure protein requirements (and substitute with ecologically sustainable non-animal protein wherever possible)
Moving Forward

The SUNY Office of Sustainability is working to leverage the predictable food purchases of SUNY institutions to support local agriculture and the processing, manufacturing, distribution, and business centers necessary to create a viable sustainable food system in New York. The Office of Sustainability and participating SUNY institutions are moving forward with “SUNY Commits to New York State Agriculture” with a Pizza Sauce pilot program. The Pizza Sauce pilot entails SUNY institutions agreeing to purchase a fixed amount of pizza sauce made and shipped entirely by local farms and businesses. This pilot allows the Office of Sustainability and participating SUNY institutions to learn from the experience and adaptively manage larger-scale purchasing strategies moving forward. In addition, the pilot serves as a market indicator for local businesses showing a growing demand from a reliable source (SUNY institutions), suggesting the supply should grow (Local farms, processors, manufacturers, and distributors).

If you would like to explore the local food options available to our college please see the Department of Agriculture’s “Farm Fresh Guide” here: [http://www.agriculture.ny.gov/AP/FFGSearch.asp](http://www.agriculture.ny.gov/AP/FFGSearch.asp).

The Food Sustainability Informational Campaign provided by the SUNY Office of Sustainability.
Questions? Contact Adam Costello at Adam.Costello@suny.edu.