PAB4108

Food systems and climate change

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Interests: nutrition, food security, food systems, sustainable food production

https://foodsystemslab.org/

Module Description:

Contemporary food systems are responsible for one-third of anthropogenic greenhouse gas emissions, immense biodiversity loss, environmental pollution and natural resource degradation. Furthermore, about 750 million people facing hunger, 3 billion people unable to afford a healthy diet,
and one third of the world's population affected by overweight and obesity. Food systems are said to be failing both planetary and human health but are also seen as an entry point to tackle the targets of multiple SDGs.

This module overviews the world's systems food production, food processing, food distribution and food consumption – and explores the impacts food systems have on climate change and the environment, and how climate change is impacting food security. We also explore what changes can be made in agricultural practices, food supply chains and food consumption to mitigate and adapt to climate change.

Learning Outcomes:

- LO1 Describe characteristics of contemporary global food systems
- LO2 Explain how contemporary food systems contribute to climate change, environmental pollution, natural resource degradation, human nutrition and health
- LO3 Identify technologies and opportunities to reduce food system impacts on human and planetary health
- LO4 Critically evaluate citizen food practices that can reduce food system impacts on human and planetary health
- LO5 Formulate a convincing case, with evidence, systems-thinking and advocacy, for a technological or social food systems intervention
- LO6 Use the food systems approach to identify synergies, trade-offs and unintended consequences of interventions relative to each other

Lecture Topics

1. Describing food systems
2. Global food production and producers
3. Food processing and processors
4. Global food trade and distribution
5. Food and nutrition security
6. Future food systems

Module Assessment:

The assessment of this modules is through on continuous assessment and written examination.

CA – Students will prepare and deliver a 5 minute presentation on a chosen food systems and climate change intervention, taking a food systems approach to identifying impacts, synergies and trade-offs. Students will then participate in a 10-minute panel discussion with other students, and Q&A from the class. Weight: 40% of the final mark.

Written examination – Students will sit a semester 1 paper on Food Systems and Climate Change. Weight: 60% of the final mark.