

AGEC 489-506/689-606
Food Security, Climate and Conflict
Spring 2016

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Office Hours: Wednesday 2:20-3:35 pm

Class Location: AGLS 110
Tuesday/Thursday 2:20pm-3:35pm

Description

Building on the rapidly accumulating evidence of the interaction of food security, conflict and climate, this course exposes students to the economic models of food production and consumption in conflict regimes; the micro-economics of violence; the dynamic relationships of climate and agricultural production; potential impacts of climate change on food and socio-political security; food security among insurgent groups; conflict resistant food systems; and the shifting relationships between poor and rich nations in relationship to climate, food and conflict. Classroom sessions will include an introduction to the topic for each classroom session, followed by student and lecturer discussions. The course will be team-taught under a lead professor.

Prerequisites: None.

Each student in the class seeks to achieve the following objectives:

1. Gain an understanding on the dynamics of food production, demand and consumption in conflict prone developing nations around the world focusing particularly on agricultural technology, growth and policies; usage of natural and human resources; conflict resistant agricultural practices and shifting relationships of climate and agriculture.
2. Develop an understanding of the factors associated with food security and conflict in neo-classical economics. Comprehend the magnitude, geographical distribution and

scope of food (in)security, malnutrition, famine, climate and agricultural conflict.

3. Understand how climate effects the socio-economic growth of a region; changes its geo-political sphere; and shape its agricultural production.
4. Learn the tools of economic analysis needed to understand the underlying causal linkages of food security, conflict and climate. Obtain theoretical and empirical understanding on the essential relationships of economic growth, social balance and shock resiliency with food security and climate.
5. Understand coping strategies and behaviors of individual rural households and rebel groups living in conflict prone societies under extreme conditions of hunger and weather variability.
6. Expose students to the qualitative and quantitative methods used to develop and test theories related to food security, climate and violence that will enable them to assess the impacts of alternative policy outcomes on conflict and conflict resolution.
7. Provide students with tools applicable in assessing programs to minimize violence and enhance food security; mitigate the impact of climate on conflict prone vulnerable groups; and contribute towards conflict prevention programs and promotion of economic development.

Americans with Disabilities Act Statement

“The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. Texas A&M University has a strong institutional commitment to the principle of diversity in all areas. In that spirit, admission to Texas A&M University and any of its sponsored programs is open to all qualified individuals without regard to subgroup, class or stereotype.”

“Disability Services offers accommodations counseling, evaluation referral, disability-related information, adaptive technology services, sign language interpreting and transcription services for academically related purposes. Although Disability Services does not offer disability evaluation and/or testing, tutoring, personal expenses, attendants or scholarships, Disability Services will provide resources and referral information.”

If you believe you have a disability requiring accommodation, please contact Department of Disability Services 701 West Campus Blvd, MS 1224. The phone number is 845-1673 and the email is disability@tamu.edu --ADA accommodations will be made in accordance with the law.

The Aggie Honor Code

“An Aggie does not lie, cheat, or steal, or tolerate those who do.”

Grading and Course Expectations

The course comprises 7, 2-week blocks of learning activity. Learning activity includes five parts: (1) 2-5 readings per two-week block; (2) four classroom lectures per block, (3) in-class or online discussions, (4) 6 (or 7 for extra credit) 2-page write-ups on a topic of choice, related to each block of readings and lectures, (5) mid-term exam, and (5) final exam. The course may be taken on-line. As this is a “stacked course” for undergraduate and graduate students, graduate students will have extra questions on exams. Graduate students have the option of writing a 15-page terms paper in lieu of the final exam.

Graduate Student Requirements:

1. Block write ups will be 3 pages (compared to 1.5 for undergraduates)
2. Mid-term and final exams will have additional questions for graduate students
3. In each block, graduate students will have additional reading requirements.

Final grades will be based on:

Activities	Percentages
Write-ups on Readings and Lectures	30%
Mid-term Exam	30%
Final Exam	30%
Class Discussion	10%

Attendance/Absences

Makeup exams and assignments will be given to students with absences considered excused under TAMU Student Rule 7 (Attendance) at <http://student-rules.tamu.edu/rule07>. For absences related to injury or illness, also see <http://attendance.tamu.edu/>.

Students will be invited for face-to-face discussions and special events on a non-credit basis. Office hours are available via Skype and face-to-face discussions. Substantial thought and innovative contribution will be expected from all students.

Block 1: Agricultural growth, technology and development: Economic concepts of food production, consumption and supply. (Jan. 19- Jan. 26)

Block 1 Write-up and Discussion Handouts January 19

Write-up 1 and Discussion Participation Due January 29 @ 5:00pm

Block 2: Concept and geography of food security, coping strategies, malnutrition and related conflict. (Jan. 28- Feb. 4)

Block 2 Write-up and Discussion Handouts February 2

Write-up 2 and Discussion Participation Due February 5 @ 5:00pm

Block 3: Causes and consequences food security and conflict in modern geo-political sphere: availability, access, utilization and stability. (Feb. 9- Feb. 18)

Block 3 Write-up and Discussion Handouts February 16

Write-up 3 and Discussion Participation Due February 19 @ 5:00pm

Block 4: Climate, food security and conflict around the globe. (Feb. 23- Mar. 10)

Block 4 Write-up Discussion Handouts March 3

Write-up 4 and Discussion Participation Due March 10 @ 5:00pm

Mid-term Exam Blocks 1-4 (Posted March 7 -- DUE March 25 at 5:00pm)

Block 5: Global climate: Economics, Science and Policy. (Mar. 22 – Mar. 31)

Block 5 Write-up and Discussion Handouts March 29

Write-up 5 and Discussion Participation Due April 1 @ 5:00pm

Block 6: Global Institutions, policy and programs of to enhance factors associated with climate. (Apr. 5- Apr. 14)

Block 6 Write-up and Discussion Handouts April 12

Write-up 6 and Discussion Participation Due April 15 @ 5:00pm

Block 7: Economics of climate and conflict resilient food production and marketing. (Apr. 19- Apr. 28)

Block 7 Write-up and Discussion Handouts April 26

Write-up 7 and Discussion Participation Due April 29 @ 5:00pm

Final Exams Posted: April 29

Final Exams Due for Graduating Students: May 5 @ 5:00pm

Final Exams Due for Non-Graduating Students: May 6 @ 5:00pm

Readings will be assigned mainly from the list below, but will be specified by block rather than by week. **The list below is subject to revision.** Readings will be assigned at least one week before the beginning of each block.

READING LIST (Tentative)

Block	Topic	Lectures and Readings
1	Agricultural Growth, Technology and Development: Economic Concepts of Food Production, Consumption and Supply	<p>Lecture Notes, Materials and Slides</p> <p>TBD</p> <p>All Students Read</p> <p>Ruttan, Vernon W. "Productivity growth in world agriculture: sources and constraints." <i>Journal of Economic Perspectives</i> (2002): 161-184.</p> <p>Ruttan, Vernon W. "Scientific and technical constraints on agriculture production: Prospects for the future." <i>Proceedings of the American Philosophical Society</i> (2005): 453-468.</p> <p>Ruttan, Vernon W. "Growth Stage Theories and Agricultural Development Policy*." <i>Australian Journal of Agricultural Economics</i> 9.1 (1965): 17-32.</p> <p>Dorward, Andrew, et al. "A policy agenda for pro-poor agricultural growth." <i>World Development</i> 32.1 (2004): 73-89.</p> <p>Grad Students ONLY</p> <p>Sen, Amartya. "The concept of development." <i>Handbook of development economics</i> 1 (1988): 9-26.</p>
2	Concept and Geography of Food Security, Coping Strategies, Malnutrition and Related Conflict	<p>Lecture Notes, Materials and Slides</p> <p>Word Document, "Lecture Note Block 2.docx" "An Introduction to Basic concepts of Food Security" by FAO. www.foodsec.org/docs/concepts_guide.pdf</p> <p>All Students Read</p> <p>Maxwell, Simon, and Marisol Smith. "Household food security: a conceptual review." <i>Household Food Security: concepts, indicators, measurements. Edited by S. Maxwell and T. Frankenberger. Rome and New York: IFAD and UNICEF</i> (1992).</p> <p>Maxwell, Daniel, et al. "Alternative food-security indicators: revisiting the frequency and severity of coping strategies'." <i>Food policy</i> 24.4 (1999): 411-429.</p> <p>Godfray, H. Charles J., et al. "Food security: the challenge of feeding 9 billion people." <i>science</i> 327.5967 (2010): 812-818.</p>

		<p>Grad Students ONLY</p> <p>Smith, Marisol, Judy Pointing, and Simon Maxwell. <i>Household food security: concepts and definitions: an annotated bibliography</i>. Vol. 8. Institute of Development Studies, 1993.</p>
3	Causes and Consequences of Food Security and Conflict in the Modern Geo-political Sphere: Availability, Access, Utilization and Stability	<p>Lecture Notes, Materials and Slides</p> <p>TBD</p> <p>All Students Read</p> <p>Messer, Ellen, Marc J. Cohen, and Thomas Marchione. "Conflict: A Cause and Effect of Hunger." <i>Special Reports</i> (2001): 1.</p> <p>"Bora, Saswati; Ceccacci, Irise; Delgado, Christopher; Townsend, Robert. 2011. <i>Food Security and Conflict</i>. World Bank, Washington, DC. © World Bank. https://www.openknowledge.worldbank.org/handle/10986/9107</p> <p>Cohen, Marc J., and Per Pinstrup-Andersen. "Food security and conflict." <i>Social Research</i> (1999): 375-416.</p> <p>Additional Readings</p> <p>TBD</p>
4	Climate, Food Security and Conflict Around the Globe	<p>Lecture Notes, Materials and Slides</p> <p>TBD</p> <p>All Students Read</p> <p>Barnett, Jon, and W. Neil Adger. "Climate change, human security and violent conflict." <i>Political geography</i> 26.6 (2007): 639-655.</p> <p>Simmons, Emmy. "Harvesting Peace: Food security, conflict, and cooperation." <i>Environmental Change and Security Program Report</i> 14.3 (2013): 0_2.</p> <p>Grad Students ONLY</p> <p>Dell M, Jones B, Olken B. What Do We Learn from the Weather? The New Climate-Economy Literature. <i>Journal of Economic Literature</i>. 2014.</p> <p>Additional Reading</p> <p>TBD</p>

5	Global Climate: Economics, Science and Policy	<p>Lecture Notes, Materials and Slides</p> <p>TBD</p> <p>All Students Read</p> <p>Hsiang, Solomon M., Marshall Burke, and Edward Miguel. "Quantifying the influence of climate on human conflict." <i>Science</i> 341.6151 (2013): 1235-367.</p> <p>Scheffran, Jürgen, et al. "Climate change and violent conflict." <i>Science (Washington)</i> 336.6083 (2012): 869-871.</p> <p>Homer-Dixon, Thomas F., Jeffrey H. Boutwell, and George W. Rathjens. "Environmental change and violent conflict." <i>SCIENTIFIC AMERICAN-AMERICAN EDITION</i>- 268 (1993): 38-38.</p>
6	Global Institutions, Policy and Programs of to Enhance Factors Associated with Climate	<p>Lecture Notes, Materials and Slides</p> <p>TBD</p> <p>All Students Read</p> <p>Lobell, David B., et al. "Prioritizing climate change adaptation needs for food security in 2030." <i>Science</i> 319.5863 (2008): 607-610.</p> <p>Ayers, Jessica M., and Saleemul Huq. "Supporting adaptation to climate change: what role for official development assistance?." <i>Development Policy Review</i> 27.6 (2009): 675-692.</p> <p>Pingali, Prabhu, Luca Alinovi, and Jacky Sutton. "Food security in complex emergencies: enhancing food system resilience." <i>Disasters</i> 29.s1 (2005): S5-S24.</p>
7	Economics of Climate and Conflict Resilient Food Production and Marketing	<p>Lecture Notes, Materials and Slides</p> <p>TBD</p> <p>All Students Read</p> <p>Climate resilient development: A framework for understanding and addressing climate change. USAID 2014. https://www.usaid.gov/climate/climate-resilient-development-framework</p> <p>Howden, S. Mark, et al. "Adapting agriculture to climate change." <i>Proceedings of the National Academy of Sciences</i> 104.50 (2007): 19691-19696.</p>

		Parry, Martin, Cynthia Rosenzweig, and Matthew Livermore. "Climate change, global food supply and risk of hunger." <i>Philosophical Transactions of the Royal Society of London B: Biological Sciences</i> 360.1463 (2005): 2125-2138.
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Class Sessions: Class sessions will focus on the topics for each of the seven blocks of the course as identified in the reading list chart above. Discussions will cover current events involving conflict, topics suggested by students, readings and questions posed by the teacher. Students are responsible for keeping up with the readings on their own. It is very important that students check their email for weekly lectures, assignments, and announcements. Students are welcome to email the instructor with any questions with the subject line "AGEC489/689:" and can attend office hours or special appointments.

Assignments: The students are expected to read all the articles and course materials before each lecture session. A 1.5-page (3 pages for graduate students) write-up of a topic of choice will be due at the end of each two-week block. The write up may consist of a summary of the reading materials on the respective topic of the learning block, or extensions and critiques of lectures, readings or current topics in the news relevant to the block of readings.

Grade: Course grade will be determined by class participation, assignments, mid-term exam and final exam or final article/paper.

Letter grades will be assigned using the following scale:

90 percent or above A

80 percent to 89.9 percent B

70 percent to 79.9 percent C

50 percent to 69.9 percent D

Below 50 percent F

The exams will be take-home and will consist of two portions. The first portion will be compulsory for all students. The second portion will have two set of different questions directed towards undergraduate and graduate students. Graduate students will be required to answer technically rigorous problems with a strong emphasis on quantitative theory and research methodology. The undergraduate students will be required to solve problems focused on policy issues.

NOTE: This syllabus is subject to changes throughout the semester. Please check your email for updates.