

**Famine, Livelihoods and Resilience. Food Security Analysis and Response
in Crisis and Crisis-Prone Contexts**

NUTR 339

DHP D242

Spring 2022

Class Meetings: Tentatively listed in Schedule at a Glance, TBD
Instructor(s): Daniel Maxwell | Daniel.Maxwell@tufts.edu | 617-627-3410
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Feinstein International Center, 75 Kneeland Street, 8th Floor; Boston
Always email both instructors with questions about grading, absences, preparation for class, etc.

Inst. Office Hours: Virtual sessions on request by email. Please contact either instructor for appointments.

Class Time: **Monday: 1:30-4:30 pm**
Classroom: Jaharis 156 (April 22 in Jaharis 118)
Teaching Asst.: Rachel Gilbert

Teaching Asst. Virtual sessions on request by email
Office Hours: <https://tufts.zoom.us/my/rachelgilbert>

Semester Hour Units: 3.0 - Full class and assignments (See pgs. 3-5)
1.5 - Reading/discussion and limited assignments
*Students that would like to be enrolled in the course with 1.5 semester hour units should first enroll in the course as 3 semester hour units and email Friedman's Registrar to request an adjustment in enrollment to 1.5 semester hour units.

Prerequisites: None (NUTR 229, NUTR 304 and NUTR 308 are helpful but not required)

Course Description: After a decade of absence from view, famine returned with a vengeance in Somalia in 2011. That famine was soon followed by South Sudan in 2017 and 2020, and possibly Nigeria in 2016. Other countries, ranging from Yemen to Burkina Faso, show a high risk of famine. While this highlights the enduring risks of famine globally, particularly in conflict-affected areas, it also highlights the limited progress made in addressing the underlying causes of severe food insecurity. "Resilience" has been the good word of the decade, but limited progress has been made in building greater resilience among the poorest or most marginalized populations, and the livelihoods of these populations are under more stress now than ever. This class will draw primarily on the international experience of the co-leaders but will attempt to draw on domestic US cases as well. This seminar class will consider new (and some not so new) approaches to the analysis of, and response to, severe food insecurity, hunger, and malnutrition among crisis-prone populations.

This class is intended as a reading seminar—not a lecture-based class or a "how to" workshop. Everyone will read the same basic materials. Class formats will be primarily discussion-based, requiring students to actively participate in class discussions, debates and activities. The students will each take on one or two of the books on particular topics to read them more thoroughly, bringing their lessons into these discussions. Case studies will be used as a discussion/learning mechanism, and attempts would be made to draw on Tufts significant faculty

resources in these areas. We will have external experts join us and offer insights into specific areas of study. The 3.0 semester hour units seminar is a core elective requirement option for MAHA students and a core elective course option in the FANPP Humanitarian Assistance specialization or the MALD humanitarian field. For the full 3.0 semester hour units requirements include one book report, and a three-part semester-long project involving the selection of a key problem or area of interest related to the class, the development of an analysis of that problem (to be presented orally to the rest of the class), writing a brief paper outlining the policy and/or programmatic response to that same crisis/issue, and a brief paper on lessons learned from this particular crisis or topic (see page 4 below). As an elective the seminar can be taken for 1.5 semester hour units for a more limited set of assignments: doing the reading, participating in (and occasionally leading) the discussion exploring the research literature, and doing two book reports (each includes an oral presentation and a written summary).

Course Goals: By the end of the semester, students will:

- Understand the long-term trends regarding the causes of crisis and vulnerability in at-risk populations, and their associated human outcomes in terms of food insecurity, hunger, malnutrition, morbidity, displacement and mortality.
- Have a working knowledge of food security and nutrition measurement, famine analysis and livelihoods assessment.
- Have in-depth knowledge of the research literature on famine, livelihoods, and resilience.
- Have a basic knowledge of programs and policies designed to address this range of drivers/contexts.

Texts or Materials: *This class will use Canvas (<https://canvas.tufts.edu>) as the platform for communicating with the class, posting readings, sharing class presentations and book reports, and in-class handouts. Most of the readings for this class are in the form of articles, papers and reports that are listed by week and posted on Canvas (<https://canvas.tufts.edu>). There are a number of books to be read, but given the number (and expense!) of these books, each member of the class will agree to read and review one or two of these (depending on class size) and share a brief report with the rest of the class. Each of these books is available through at least one Tufts library, and most are available on both campuses and available electronically through the library. Please see the Canvas Reading List for links and availability. These books include:*

Required Books (for all students to read):

Sen, Amartya. *Poverty and Famines: An Essay on Entitlement and Deprivation*. Oxford: OUP Oxford, 1981.

Chapters 1-6.

Waal, Alex de. *Mass Starvation: The History and Future of Famine*. Polity Press, 2017.

Please start reading this book as soon as you can. You will need to read chapters 1-6 by Monday, February 7 (Session 3) and the remainder by Session 12. We will be referring to this throughout the semester, and deal with it in depth in Session 12.

Shared Reading (each student will be responsible for reading and reporting on one or two):

Maxwell, Daniel, and Nisar Majid, eds. *Famine in Somalia: Competing Imperatives, Collective Failures, 2011–12*. Oxford University Press, 2016. <https://doi.org/10.1093/acprof:oso/9780190499389.001.0001>.

Waal, Alex de. *Famine That Kills: Darfur, Sudan*. Revised Edition. Oxford Studies in African Affairs. Oxford, New York: Oxford University Press, 2005.

Davis, Mike. *Late Victorian Holocausts: El Niño Famines and the Making of the Third World*. Verso, 2001.

Egan, Timothy. *The Worst Hard Time: The Untold Story of Those Who Survived the Great American Dust Bowl*. 1st Mariner Books ed. Boston: Houghton Mifflin Co, 2006.

- Kindler, Robert, and Cynthia Klohr. *Stalin's Nomads: Power and Famine in Kazakhstan*. Central Eurasia in Context Series. Pittsburgh, Pa: University of Pittsburgh Press, 2018.
- Applebaum, Anne. *Red Famine: Stalin's War on Ukraine*. First United States edition. New York: Doubleday, 2017.
- Biong Deng, Luka. *Famine in the Sudan: Causes, Preparedness and Response. A Political, Social and Economic Analysis of the 1998 Bahr El Ghazal Famine*. Institute of Development Studies, 1999.
- Buchanan-Smith, Margaret, and Susanna Davies. *Famine Early Warning and Response: The Missing Link*. London: Intermediate Technology Publ, 1995.
- Xun, Zhou. *Forgotten Voices of Mao's Great Famine, 1958-1962*. New Haven: Yale University Press, 2013.
- Haggard, Stephan, and Marcus Noland. *Famine in North Korea: Markets, Aid, and Reform*. New York: Columbia University Press, 2007.
- Zwarte, Ingrid de. *The Hunger Winter: Fighting Famine in the Occupied Netherlands, 1944–1945*. 1st ed. Cambridge University Press, 2020.
- Cullen, Karen J. *Famine in Scotland - the "Ill Years" of the 1690s*. Edinburgh University Press, 2010.
- Jordan, William C. *The Great Famine: Northern Europe in the Early Fourteenth Century*. 3rd ed. Princeton Paperbacks. Princeton: Princeton University Press, 1998.

Recommended Books:

- Dikötter, Frank. *Mao's Great Famine: The History of China's Most Devastating Catastrophe, 1958-1962*. New York: Bloomsbury Publishing USA, 2011.
- Webb, Patrick, and Joachim von Braun. *Famine and Food Security in Ethiopia: Lessons for Africa*. Chichester, England: John Wiley and Sons, 1994.
- Barrett, Christopher B., and Daniel G. Maxwell. *Food Aid after Fifty Years: Recasting Its Role. Priorities in Development Economics*. London; New York: Routledge, 2005. All chapter conclusions, chapters 1, 6, 7, 8, 10, and all "Food aid myths" and all recommendations.
- Edgerton-Tarpley, Kathryn. *Tears from Iron: Cultural Responses to Famine in Nineteenth-Century China*. Berkeley: University of California Press, 2008.
- Devereux, Stephen, ed. *The New Famines: Why Famines Persist in an Era of Globalization*. Routledge Studies in Development Economics 52. London: Routledge, 2009.
- Cliggett, Lisa. *Grains from Grass: Aging, Gender, and Famine in Rural Africa*. Ithaca: Cornell University Press, 2005.
- Gráda, Cormac Ó. *Eating People Is Wrong, and Other Essays on Famine, Its Past, and Its Future*. Princeton University Press, 2015.
- Alfani, Guido, and Cormac Ó Gráda. *Famine in European History*. Cambridge: Cambridge University Press, 2017.

Students are invited to suggest other books for the "recommended" list!

Academic Conduct: Each student is responsible for upholding the highest standards of academic integrity, as specified in the [Friedman School's Policies and Procedures Handbook](http://students.tufts.edu/student-affairs/student-life-policies/academic-integrity-policy) and Tufts University policies (<http://students.tufts.edu/student-affairs/student-life-policies/academic-integrity-policy>). It is the responsibility of each student to understand and comply with these standards, as violations will be sanctioned by penalties ranging from failure on an assignment and the course to dismissal from the school.

Classroom Conduct: This is a seminar course based on reading, discussion and active participation. Students are expected to attend all class sessions if they are in good health, and to come prepared to discuss and participate in group activities. We strongly prefer that students attend virtual class sessions with their Zoom video turned on. If students have a valid reason for keeping their video off, please contact one of the instructors or the TA.

Assessment and Grading: Assessment will be based on reading, discussion, active participation and assignments.

Assignments

Assignments for students registered as either 3.0 OR 1.5 SHU include:

1. All readings

Criteria for grading:

- Actively demonstrate a knowledge of the concepts from the readings in class discussions

2. Oral book review and written report on the books listed above (Note: Students registered for 3.0 SHU will do one book. Students registered for 1.5 SHU will do two books.)).

Criteria for grading:

- Completeness, brevity and clarity of a 2–3-page book review
- Key concepts identified and covered in a **6–8-minute oral recap** of the book’s main points

3. Participation in discussion and group exercises

Criteria for grading

- Attendance and consistent, active participation that contributes to the discussions

Additional assignments for the 3.0 Semester Hour Units participants:

1. Select a particular famine, chronic hunger problem or issue related to the themes of the class:

- a. **Background presentation:** Prepare and present a **10–15-minute** oral presentation on the background to and analysis of the topic or crisis. (Note: the time allocation will depend on how many students pursue the 3.0 SHU option).

Criteria for grading

- Completeness of the presentation within a 10–15-minute time slot
- Key concepts or findings presented and clarified

- b. **Policy memo:** Write a brief policy memo (<1,200 words) outlining the policy and/or programmatic response to that same crisis/issue. (What was the response? Did it bring the crisis under control? What should have been done differently, when, and by whom? Identify one or more entry points where policy and/or programs could have been adjusted to prevent or mitigate the impact of famine/chronic hunger as relevant to the case).

Criteria for grading

- Completeness of the analysis of the policy/program response
- Actionable policy and response prescriptions outlined and defended

- c. **“Lessons learned” paper:** Write a brief paper (~2,000-2,500 words) on the same crisis/issue as the oral presentation and policy memo addressing the question of “so what?” What are the lessons this particular crisis (or topic) can teach us—for famine prevention and response generally? How does this

situation compare to other similar crises we've looked at during the semester? What generalizable lessons can we learn from this? How do we know they are generalizable?

Criteria for grading

- Identifying comparable crises and undertaking a comparative analysis
- Identifying key take-away points or lessons learned
- Identifying and defending generalizable learning from the specific case studied

Grading Range:

For the 3.0 SHU

Letter grades will be given for each assignment:

Book reviews (oral and written):	25%
Discussion and exercise participation:	25%
Final background presentation:	20%
Final policy memo:	15%
Final "lessons learned" paper:	15%

For the 1.5 SHU

Letter grades will be given for each assignment:

Book reviews (oral and written):	50%
Discussion and exercise participation:	50%

Instructions for Submission of Assignments and Exams: The written book reviews will be due 24 hours before the class session in which they are presented. All other assignments due at midnight on the date indicated. They may be submitted on-line via Canvas.

Accommodation of Disabilities: Tufts University is committed to providing equal access and support to all students through the provision of reasonable accommodations so that each student may access their curricula and achieve their personal and academic potential. If you have a disability that requires reasonable accommodations, please contact the Friedman School Assistant Dean of Student Affairs at 617-636-6719 to make arrangements for determination of appropriate accommodations. Please be aware that accommodations cannot be enacted retroactively, making timeliness a critical aspect for their provision.

Tufts Zoom: Friedman's on-campus courses may be offered by Tufts Zoom (<https://access.tufts.edu/zoom>) on days when the Boston campus is closed due to pandemic, weather or a temporary cancellation issue. Students should expect to be notified by email in the event that class is cancelled and will be provided with the Zoom link for students to attend any remote class sessions during the normally scheduled class period. The Zoom meeting video and audio will be recorded and posted on Canvas when completed. If an on-campus Examination/Presentation was scheduled on a day when the Boston campus is closed due to weather or a temporary cancellation issue and cannot be conducted by Zoom, the exam/presentation will be rescheduled for an alternate on-campus class session date.

Zoom links for all classes are available in the Zoom tab of Canvas. Specially scheduled days (see below) have different Zoom links, which are also available in Canvas.

This class is listed as "in person." If the pandemic significantly worsens, we will shift to on-line classes. **All students are expected to attend all classes in-person** except in cases of ill-health or other major events. Students who do attend a class on-line should make an extra effort to engage in the discussion.

Diversity Statement: We believe that the diversity of student experiences and perspectives is essential to the deepening of knowledge in this course. We consider it part of our responsibility as instructors to address the learning needs of all of the students in this course. We will present materials that are respectful of diversity: race, color, ethnicity, gender, age, disability, religious beliefs, political preference, sexual orientation, gender identity, socioeconomic status, citizenship, language, or national origin among other personal characteristics.

Special Scheduling. Monday February 21st is a public holiday (Presidents Day) and the makeup date for Friedman classes scheduled for that day is February 24th. However, this conflicts with the Fletcher DC career trip, which presumably some members of the class will hope to attend, and thus some proportion of the class won't be able to do the alternate day. So, we will record the framing and guest lecture for that day, and then hold a separate 45-minute group discussion make-up session with the students who aren't able to make the class at the alternate time.

Also, because April 18 is Patriot's Day (and more importantly, the running of the Boston Marathon) there are no classes scheduled for that day either so unfortunately ☹️ classes get rescheduled for Friday, April 22. ***We will meet in Jaharis 118 (instead of Jaharis 156) on April 22.***

Please plan accordingly if signing up for this class.

Course Topics and Assignment Schedule at a Glance:

Date	Session No. and Topic	Framing	Visiting Expert	Activity	Assignments
Jan 24	1. Introduction and Framing	Dan	No guest	Group discussion	Reading
Jan 31	2. Food Security: Concept and Measurement	Merry	No guest	Food security measures exercise	Reading Book reviews
Feb 7	3. Famine Theory and Causation	Dan	Maybe Paul Howe	Famine causation mapping	Reading Book reviews Semester Project Outline
Feb 14	4. Famine Analysis and Measurement (to include IPC)	Dan	Maybe Chris Newton	Comparative exercise	Reading Book reviews
Feb 21	No class (Presidents Day)	No class meeting (NOTE: Friedman has a Monday schedule on Thursday February 24)			
Feb 24 (Thurs)	5. Livelihoods: Concept and Analysis	Merry	Abdal Monium Osman	Oral Presentations	Reading Oral Presentation of problem analysis (half of students)
Feb 28	6. IPC simulation	Dan	No guest	Simulation	Reading Simulation preparation
Mar 7	7. Coping, Vulnerability and Risk	Dan	Maybe Guhad Adan	Group discussion, oral presentations	Reading Book reviews Oral Presentation of problem analysis (half of students)
Mar 14	8. Resilience: Concept and Measurement	Merry	Greg Collins	Resilience scenario exercise	Reading Book reviews
Mar 21	Spring Break	No class meeting			
Mar 28	9. Nutrition, Health, WASH and Mortality in Famine	Merry	Maybe Jiho Cha	Group Discussion	Reading Book reviews Policy Memo
Apr 4	10. Early Warning and Information Systems	Dan	Nigist Biru	Early Warning Exercise	Reading Book reviews
Apr 11	11. Program and Policy Response	Merry	No guest	Q&A on instructor experiences	Reading Book reviews
Apr 18	Patriots Day	No class meeting (NOTE: Friedman has a Monday schedule on Friday April 22)			
Apr 22 (Fri) *Jaharis 118	12. Accountability for Famine	Dan	Alex de Waal	Case study	Reading Book reviews
May 2	13. The Experience and Societal Impact of Famine and Extreme Food Insecurity	Merry	Luka Biong Deng	Experiences exercise	Reading Book reviews
May 6-13	Exam Week	No class meeting			Lessons Learned paper due by May 7

Detailed Description of Course Topics, Assignment Schedule, and the Learning Goals for Each Class Session:

Session 1. Introduction and framing (Jan 24)

What is famine? Why study famine? What is the link between famines (which we think of as the most egregious form of humanitarian emergency) and livelihoods and resilience (which we tend to think of as “development” issues)? This session will frame the semester and the topics we are covering, and dive into some of the classics of the 20th (Sen) and 21st (de Waal) centuries of famine studies. And then, of course, how do we come to terms with the COVID-19 pandemic of 2020?

Learning Goals:

After this session the student will be able to:

- Differentiate between various contemporary approaches to analyzing famine
- Explain why food security interventions in crises have often failed in the past
- Describe first-hand accounts of the experience of famine
- Outline the key tenets of entitlement theory and starvation crimes.

Required Reading:

Maxwell, Daniel, Nisar Majid, Guhad Adan, Khalif Abdirahman, and Jeeyon Janet Kim. “Facing Famine: Somali Experiences in the Famine of 2011.” Medford, MA: Feinstein International Center, Tufts University, October 2015.

Sen, Amartya. Poverty and Famines: An Essay on Entitlement and Deprivation. Oxford: OUP Oxford, 1981.
Chapters 1-6.

FAO and WFP. “FAO-WFP Early Warning Analysis of Acute Food Insecurity Hotspots.” Rome: FAO and WFP, 2020.
<https://doi.org/10.4060/cb0258en>.

Montreal Institute for Genocide and and Human Rights Studies. “Ukrainian Famine Memoirs.”
<https://www.concordia.ca/content/concordia/en/research/migs/resources/ukrainian-famine-memoirs.html>.
Select any three short eye-witness accounts.

Recommended Reading:

Levine, Simon, and Claire Chastre. “Missing the Point: An Analysis of Food Security Interventions in the Great Lakes.” London: Overseas Development Institute, 2004.

Activity: Group Discussion

Assignments Due: Reading

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Session 2. Food Security: Concepts and Measures (Jan 31)

Ironically, the study of famine gave rise to the notion of food security (not vice versa). “Food security” arose as a concern out of the world food crisis of the 1970s (focused on worries about overall supply) but even more so as a result of Sen’s insights about access or demand. Food security essentially means always having physical and economic access to adequate, nutritious, safe and culturally preferred food for an active, healthy life. Achieving this for all people at all times is an enduring challenge. So is measuring it!

Learning Goals:

After this session the student will be able to:

- Define and describe food security and food insecurity
- Demonstrate ability to use food security measures and indicators
- Describe the relationship between food insecurity and famine

Required Reading:

Devereux, Stephen, Christophe Béné, and John Hoddinott. “Conceptualising COVID-19’s Impacts on Household Food Security.” *Food Security* 12, no. 4 (August 2020): 769–72. <https://doi.org/10.1007/s12571-020-01085-0>.

Barrett, Christopher B., and Erin C. Lentz. *Hunger and Food Insecurity*. Edited by David Brady and Linda M. Burton. Vol. 1. Oxford University Press, 2017. <https://doi.org/10.1093/oxfordhb/9780199914050.013.27>.

Coates, Jennifer, Anne Swindale, and Paula Bilinsky. “Household Food Insecurity Access Scale (HFIAS) for Measurement of Household Food Access: Indicator Guide (v. 3).” Washington, DC: FHI 360/FANTA, 2007. <https://doi.org/10.1037/e576842013-001>.

Ballard, Terri J., Anne W. Kepple, and Carlo Cafiero. “The Food Insecurity Experience Scale: Development of a Global Standard for Monitoring Hunger Worldwide.” FAO Technical Paper. Rome: Food and Agriculture Organization of the United Nations, October 2013. https://www.fao.org/fileadmin/templates/ess/voh/FIES_Technical_Paper_v1.1.pdf.

Maxwell, Daniel, Jennifer Coates, and Bapu Vaitla. “How Do Different Indicators of Household Food Security Compare? Empirical Evidence from Tigray.” Medford, MA: Feinstein International Center, Tufts University, August 2013.

Recommended Reading:

Dahal, Poshan, Jeeyon Janet Kim, Daniel Maxwell, Matteo Smerlak, Elizabeth Stites, and Bapu Vaitla. “An Analysis of Food Security Resilience in Rural Nepal.” Boston, MA: Feinstein International Center, Tufts University, 2018.

Maxwell, Daniel, and Richard Caldwell. “The Coping Strategies Index: Field Methods Manual (2 Ed.),” January 2008.

Food Economy Group. “What Is HEA?” Accessed January 2, 2022. <https://www.heacod.org/en-gb/Pages/WhatIsHEA.aspx>.

Activity: Group Discussion

Assignments Due: Reading

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Session 3. Famine Theory and Famine Causation (Feb 7)

Why do famines happen? Our knowledge of famines and why they continue to occur in an age of “plenty” grows in baby steps. Since Malthus, we have presumed that the cause of “famine” is too many mouths to feed with the productive resources available. That notion, though thoroughly debunked, is remarkably durable. Sen made it clear that the dynamics of famine were the collapse of entitlements but was vague on the causes. The common feature of contemporary (and many historical) famines is violent conflict, repressive politics, or both. But the causes are almost always multiple; understanding the way causes interact is critical.

Learning Goals:

After this session the student will be able to:

- Demonstrate basic knowledge of famine theory
- Discuss and relate to each other the major causes of famine and food insecurity
- Prepare and discuss a map or framework of causal factors of famine and food security crises

Required Reading:

Devereux, Stephen, ed. *The New Famines: Why Famines Persist in an Era of Globalization*. Routledge Studies in Development Economics 52. London: Routledge, 2009. **Chapter 1.**

Howe, Paul. “Famine Systems: A New Model for Understanding the Development of Famines.” *World Development* 105 (May 1, 2018): 144–55. <https://doi.org/10.1016/j.worlddev.2017.12.028>.

Maxwell, Daniel, and Nisar Majid. “The Problem of Famines.” In *Famine in Somalia*. Oxford University Press, 2016. <https://doi.org/10.1093/acprof:oso/9780190499389.003.0002>.

Biong Deng, Luka. “Increased Rural Vulnerability in the Era of Globalization: Conflict and Famine in Sudan during the 1990s.” In *The New Famines*, edited by Stephen Devereux. Routledge, 2007.

Keen, David. “A Disaster for Whom?: Local Interests and International Donors During Famine Among the Dinka of Sudan.” *Disasters* 15, no. 2 (June 1991): 150–65. <https://doi.org/10.1111/j.1467-7717.1991.tb00444.x>.

Waal, Alex de. *Mass Starvation: The History and Future of Famine*. Polity Press, 2017. **Chapters 1-4, 5 & 6 if possible.**

Recommended Reading:

Keller, Edmond J. “Drought, War, and the Politics of Famine in Ethiopia and Eritrea.” *The Journal of Modern African Studies* 30, no. 4 (December 1992): 609–24. <https://doi.org/10.1017/S0022278X00011071>.

Activity:

Group discussion with famine causation mapping
Book review by a student according to the schedule

Assignments Due:

Reading
Semester Project Outline: Two-page outline for a comparison of two specific famines or crisis event for the semester-long project (3.0 SHU students only).

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Session 4. Famine Analysis and Measurement (Feb 14)

How are famines measured and analyzed, and why? How do we know if an event or a process of events constitutes a famine or not? Does that matter? These are all controversial questions. The measurement and classification of famine is now largely based on the Integrated Food Security Phase Classification (IPC) system, but IPC was not invented for famine analysis. It tends to emphasize the dimension of the severity of the crisis—at the expense of the magnitude or duration of the crisis, and tends to emphasize current status, rather than forecasting famine (although this is improving). The COVID-19 forced new ways of assessing extreme food security crises, and machine learning is beginning to impact the way we assess and forecast famine as well.

Learning Goals:

After this session the student will be able to:

- Describe and demonstrate the usage of the main famine analysis tools
- Define the difference between causal analysis and classification or needs assessment
- Apply the findings of famine classification to strategic response

Required Reading:

Maxwell, Daniel, and Merry Fitzpatrick. “The 2011 Somalia Famine: Context, Causes, and Complications.” *Global Food Security*, Special Issue on the Somalia Famine of 2011-2012, 1, no. 1 (December 1, 2012): 5–12.

<https://doi.org/10.1016/j.gfs.2012.07.002>.

Howe, Paul, and Stephen Devereux. “Famine Intensity and Magnitude Scales: A Proposal for an Instrumental Definition of Famine.” *Disasters* 28, no. 4 (2004): 353–72. <https://doi.org/10.1111/j.0361-3666.2004.00263.x>.

IPC Global Partners. “Integrated Food Security Phase Classification Technical Manual Version 3.1: Evidence and Standards for Better Food Security and Nutrition Decisions.” Rome, 2021.

Maxwell, Daniel, Abdullahi Khalif, Peter Hailey, and Francesco Checchi. “Determining Famine: Multi-Dimensional Analysis for the Twenty-First Century.” *Food Policy* 92 (April 1, 2020): 101832.

<https://doi.org/10.1016/j.foodpol.2020.101832>.

Lentz, E. C., H. Michelson, K. Baylis, and Y. Zhou. “A Data-Driven Approach Improves Food Insecurity Crisis Prediction.” *World Development* 122 (October 1, 2019): 399–409.

<https://doi.org/10.1016/j.worlddev.2019.06.008>.

Recommended Reading:

Glenzer, Kent. “We Aren’t the World: The Institutional Production of Partial Success.” In *A Not-so Natural Disaster: Niger 2005*, edited by Xavier Crombé and Jean-Hervé Jézéquel. London: Hurst & Company, 2009.

Activity:

Group discussion with comparative exercise

Book review by a student according to the schedule

Assignments Due:

Reading

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Session 5. Livelihoods Framework and Analysis (Feb 24 - THURSDAY)

NOTE: DUE TO PRESIDENTS' DAY ON 21 FEB, CLASS IS MOVED TO THURSDAY 24 FEBRUARY. PRESENTATIONS WILL BE RECORDED AND A MAKE-UP DISCUSSION SESSION WILL BE HELD FOR FLETCHER STUDENTS WHO ARE NOT ABLE TO ATTEND ON THIS DAY.

It quickly became clear as researchers and program staff dug into the question of access to adequate food that people aspire to much more than just food, and have multiple means of access. This gave rise in the 1980s and 1990s to the much broader question of livelihoods, and how people manage the means at their disposal to achieve the outcomes they seek, only one of which is food security.

Learning Goals:

After this session the student will be able to:

- Define livelihoods and describe the livelihoods analysis framework
- Apply the livelihoods analysis framework to particular crises or contexts
- Explain the role of livelihoods in food security and programs to address food insecurity

Required Reading:

Scoones, Ian. "Sustainable Rural Livelihoods: A Framework for Analysis." IDS Working Papers. Brighton: Institute of Development Studies, 1998. <https://opendocs.ids.ac.uk/opendocs/handle/20.500.12413/3390>.

Ashley, Caroline, and Diana Carney. *Sustainable Livelihoods: Lessons from Early Experience*. London: Department for International Development, 1999.

Jaspars, Susanne. "What Is Livelihoods Programming? (Special Supplement 3)." *Supplement 3: From Food Crisis to Fair Trade*, January 3, 2006, 6.

Young, Helen, Abdul Monium Khider Osman, Yacob Aklilu, Rebecca Dale, Babiker Badri, and Abdul Jabbar Abdullah Fuddle. "Darfur – Livelihoods under Siege." Medford, MA: Feinstein International Famine Center, Tufts University, 2005. **Executive Summary, Chapter 1, and one of the case studies**

FEWS NET. "Democratic Republic of the Congo: Livelihood Baseline Profiles." Washington, DC, December 2017. https://fews.net/sites/default/files/documents/reports/Baseline_profiles_for_DRC.pdf.

Activity:

Oral presentations of the problem analysis (half of the class)

Assignments Due:

Reading

Oral background presentations

Session 6. IPC Simulation (Feb 28)

The Integrated Food Security Phase Classification (IPC) was introduced in Somalia in the mid-2000s, and by the end of the decade had become the standard for classification of the severity of food security and nutrition crises globally. Although it wasn't intended as the standard for famine analysis per se, it has become that, as well as for crises of lesser severity. Initially developed for the 2018 "Nutrition Data Hackathon," this simulation takes participants through an example of a famine classification analysis, highlighting the use and interpretation of indicators, the kinds of problems often encountered and the kinds of outcomes that such analyses are expected to achieve.

Learning Goals:

After this session the student will be able to:

- Read and accurately interpret IPC analyses
- Demonstrate the ability to interpret food security, nutrition and mortality indicators
- Describe the major challenges in famine analysis and classification, and outline the ways of dealing with them

Required Reading:

All background materials for the simulation (all will be posted on Canvas). This includes the introduction the simulation and a supplement containing all the data that you will work with.

Review:

IPC Global Partners. "Integrated Food Security Phase Classification Technical Manual Version 3.1: Evidence and Standards for Better Food Security and Nutrition Decisions." Rome, 2021.

All the articles on food security indicators from Session 2.

Activity:

IPC Simulation

Assignments Due:

Reading and preparation for the simulation

Session 7. Coping, Vulnerability and Risk (Mar 7)

What makes people vulnerable to famine—or to shocks and crises of lesser severity and magnitude? How do vulnerable people cope with adversity—quite aside from any state or international intervention to address a shock? Why are some people more affected by one shock than another? This is a baseline understanding for what comes later in the seminar.

Learning Goals:

After this session the student will be able to:

- Describe and discuss the major categories of famine coping strategies
- Explain the role of social networks and social support in coping
- Apply insights from famine studies to livelihoods and food security concerns of lesser severity

Required Reading:

Humanitarian Policy Group. "Getting It Right: Understanding Livelihoods to Reduce the Vulnerability of Pastoral Communities." Synthesis Paper. London: Overseas Development Institute, April 2009.

<https://reliefweb.int/report/world/getting-it-right-understanding-livelihoods-reduce-vulnerability-pastoral-communities>.

Corbett, Jane. "Famine and Household Coping Strategies." *World Development* 16, no. 9 (September 1988): 1099–1112. [https://doi.org/10.1016/0305-750X\(88\)90112-X](https://doi.org/10.1016/0305-750X(88)90112-X).

Devereux, Stephen. "Goats Before Ploughs: Dilemmas of Household Response Sequencing During Food Shortages." *IDS Bulletin* 24, no. 4 (1993): 52–59. <https://doi.org/10.1111/j.1759-5436.1993.mp24004006.x>.

Sadliwala, Batul K. "Fleeing Mass Starvation: What We (Do Not) Know about the Famine–Migration Nexus." *Disasters* 45, no. 2 (2021): 255–77. <https://doi.org/10.1111/disa.12420>.

REACH. "South Sudan – 'Now the Forest Is Blocked': Shocks and Access to Food," March 2018.

https://reliefweb.int/sites/reliefweb.int/files/resources/ssd_report_shocks_and_access_to_food_march_2018_final.pdf.

Deng, Luka Biong. "Social Capital and Civil War: The Dinka Communities in Sudan's Civil War." *African Affairs* 109, no. 435 (April 1, 2010): 231–50. <https://doi.org/10.1093/afraf/adq001>.

Recommended Reading:

Chambers, Robert. "Editorial Introduction: Vulnerability, Coping and Policy." *IDS Bulletin* 20, no. 2 (1989): 1–7.

<https://doi.org/10.1111/j.1759-5436.1989.mp20002001.x>.

Activity:

Book review by a student according to the schedule

Oral presentations for second half of class

Assignments Due:

Reading

Oral background presentations

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Session 8. Resilience: Concept and Measurement (Mar 14)

Particularly since the 2011 famine in Somalia, “resilience” programming has been the primary approach to preventing famine, enabling communities and households to better withstand and recover from shocks. But its meaning, its measurement, and “how to do it” remain a question. People build their livelihoods with resilience in mind, and the very concept of being resilient in humanitarian crises depends on a livelihood that can meet the needs of an individual or household. As we saw during the pandemic, the major impact even a “medical” emergency has on livelihoods. Those with more resilient livelihoods were able to avoid many of the medical risks associated with the pandemic. This dynamic applies to most crises, including famine.

Learning Goals:

After this session, the student will be able to:

- Define and describe resilience as it applies to food security and livelihoods
- Demonstrate the application of resilience to crisis contexts
- Describe the difficulties in developing indicators for livelihood resiliency
- Apply the concepts of resilient livelihoods to recent crises

Required Reading:

Fitzpatrick, Merry, and Anastasia Marshak. “Resilient Livelihood Systems in Darfur: Key Factors and Proposed Approach to Analysis.” Somerville, MA: Feinstein International Center, Tufts University, August 2015. **Pages 4-24.**

Brück, Tilman, Marco d’Errico, and Rebecca Pietrelli. “The Effects of Violent Conflict on Household Resilience and Food Security: Evidence from the 2014 Gaza Conflict.” *World Development* 119 (July 1, 2019): 203–23. <https://doi.org/10.1016/j.worlddev.2018.05.008>.

Ensor, Jonathan, Nilufar Matin, John Forrester, and Marion Davis. “What Is Equitable Resilience?: Four Key Elements for Putting Resilience into Practice.” Stockholm Environment Institute, 2019. <https://www.jstor.org/stable/resrep22984>.

Béné, Christophe, Derek Headey, Lawrence Haddad, and Klaus von Grebmer. “Is Resilience a Useful Concept in the Context of Food Security and Nutrition Programmes? Some Conceptual and Practical Considerations.” *Food Security* 8, no. 1 (February 1, 2016): 123–38. <https://doi.org/10.1007/s12571-015-0526-x>.

Ifejika Speranza, Chinwe, Urs Wiesmann, and Stephan Rist. “An Indicator Framework for Assessing Livelihood Resilience in the Context of Social–Ecological Dynamics.” *Global Environmental Change* 28 (September 1, 2014): 109–19. <https://doi.org/10.1016/j.gloenvcha.2014.06.005>.

Recommended Reading:

Chetty, Raj, Nathaniel Hendren, Maggie R Jones, and Sonya R Porter. “Race and Economic Opportunity in the United States: An Intergenerational Perspective*.” *The Quarterly Journal of Economics* 135, no. 2 (May 1, 2020): 711–83. <https://doi.org/10.1093/qje/qjz042>. **Introduction and Conclusion only.**

Activity:

Group discussion with resilience scenario exercise
Book review by a student according to the schedule

Assignments: Readings

Session 9. Nutrition, Health, WASH and Mortality (Mar 28)

Much of the analysis of famine—as well as of crises of lesser severity and indeed many chronic conditions characterized by food insecurity and malnutrition—has been criticized for taking an overly narrow focus on food access and consumption. Nutrition surveys and treatment has focused almost exclusively on young children. The UNICEF framework for malnutrition would suggest a much broader approach to analysis, but many major famine analysis frameworks relegate things like health and WASH to relatively minor consideration. With new multisectoral approaches, this is slowly changing.

Learning Goals:

After this session the student will be able to:

- Define and describe the role of health and WASH in famine and food security crisis
- Describe the interactions among nutrition, health status, sanitation and mortality in famine
- Discuss the ways in which the dynamics of a humanitarian crisis and its underlying causes will affect the nutritional status, health and mortality of a population
- Utilize information on nutrition, health and mortality to analyze famine and chronic food insecurity to formulate policy and response strategies

Required Reading:

Young, Helen, and Susanne Jaspars. “The Meaning and Measurement of Acute Malnutrition in Emergencies: A Primer for Decision-Makers.” Network Paper. London: Humanitarian Practice Network, Overseas Development Institute, November 2006.

Salama, Peter, and Steve Collins. “An Ongoing Omission: Adolescent and Adult Malnutrition in Famine Situations.” *Refuge: Canada’s Journal on Refugees* 18, no. 5 (January 2000): 12–15.
<https://doi.org/10.25071/1920-7336.22046>.

Roberts, Bayard, Oliver W Morgan, Mohammed Ghaus Sultani, Peter Nyasulu, Sunday Rwebangila, Mark Myatt, Egbert Sondorp, Daniel Chandramohan, and Francesco Checchi. “A New Method to Estimate Mortality in Crisis-Affected and Resource-Poor Settings: Validation Study.” *International Journal of Epidemiology* 39, no. 6 (December 1, 2010): 1584–96. <https://doi.org/10.1093/ije/dyq188>.

Marshak, Anastasia, Helen Young, Elizabeth N. Bontrager, and Erin M. Boyd. “The Relationship Between Acute Malnutrition, Hygiene Practices, Water and Livestock, and Their Program Implications in Eastern Chad.” *Food and Nutrition Bulletin* 38, no. 1 (March 2017): 115–27. <https://doi.org/10.1177/0379572116681682>.

Richterman, Aaron, Molly F. Franke, Georgery Constant, Gregory Jerome, Ralph Ternier, and Louise C. Ivers. “Food Insecurity and Self-Reported Cholera in Haitian Households: An Analysis of the 2012 Demographic and Health Survey.” Edited by Emily Gurley. *PLOS Neglected Tropical Diseases* 13, no. 1 (January 30, 2019): e0007134. <https://doi.org/10.1371/journal.pntd.0007134>.

Recommended Reading:

Roberts, L., and M. J. Toole. “Cholera Deaths in Goma.” *Lancet (London, England)* 346, no. 8987 (November 25, 1995): 1431. [https://doi.org/10.1016/s0140-6736\(95\)92447-7](https://doi.org/10.1016/s0140-6736(95)92447-7).

Checchi, Francesco, and W. Courtland Robinson. “Mortality among Populations of Southern and Central Somalia Affected by Severe Food Insecurity and Famine During 2010-2012.” Rome: Food and Agriculture Organization of the United Nations, 2013.

Activity:

Group discussion

Book review by a student according to the schedule

Assignments Due: Readings, Policy Memos

Session 10. Early Warning and Information Systems (Apr 4)

The prevention of famine is contingent on foreseeing the shocks or drivers that lead to famine, and then acting on them. Since the 1970s, major efforts have been made to understand the patterns that lead to famine, and then monitor these to provide an early warning (whether of famine or a crisis of lesser severity). But problems remain—both with the analysis itself, the systems set up to track the early indicators of famine, and with the linkages to the kinds of action that can prevent or mitigate—or at least enable a timely response to—potential famines.

Learning Goals:

After this session the student will be able to:

- Describe the functioning of a humanitarian early warning system
- Differentiate components of a humanitarian information system
- Describe contemporary challenges to early warning and information
- Analyze the linkages of early warning and action (whether anticipatory or responsive)

Required Reading:

Maxwell, Daniel, and Ben Watkins. "Humanitarian Information Systems and Emergencies in the Greater Horn of Africa: Logical Components and Logical Linkages." *Disasters* 27, no. 1 (March 2003): 72–90.

<https://doi.org/10.1111/1467-7717.00220>.

Lentz, Erin, Gregory Gottlieb, Cori Simmons, and Daniel Maxwell. "2020 Hindsight? The Ecosystem of Humanitarian Diagnostics and Its Application to Anticipatory Action." Boston: Feinstein International Center, Tufts University, 2020.

Choularton, Richard J., and P. Krishna Krishnamurthy. "How Accurate Is Food Security Early Warning? Evaluation of FEWS NET Accuracy in Ethiopia." *Food Security* 11, no. 2 (April 1, 2019): 333–44.

<https://doi.org/10.1007/s12571-019-00909-y>.

Maxwell, Daniel, and Peter Hailey. "Analysing Famine: The Politics of Information and Analysis in Food Security Crises." *Journal of Humanitarian Affairs* 3, no. 1 (January 1, 2021): 16–27. <https://doi.org/10.7227/JHA.055>.

Hillbruner, Chris, and Grainne Moloney. "When Early Warning Is Not Enough—Lessons Learned from the 2011 Somalia Famine." *Global Food Security* 1, no. 1 (December 2012): 20–28.

<https://doi.org/10.1016/j.gfs.2012.08.001>.

Recommended Reading:

Cabot-Venton, Courtenay. "Economics of Early Response and Resilience to COVID-19: Ethiopia." London: Social Protection Approaches to COVID-19: Expert Advice (SPACE), 2020.

Save the Children and OXFAM. "A Dangerous Delay: The Cost of Late Response to Early Warnings in the 2011 Drought in the Horn of Africa," 2012. https://doi.org/10.1163/2210-7975_HRD-9824-0066.

Activity:

Early warning exercise

Book review by a student according to the schedule

Assignments Due: Reading

Session 11. Programmatic and Policy Response (Apr 11)

Responses to famine have changed over time, but still are often too little, too late. Prevention and mitigation mechanisms have taken greater priority, as have means for developing rapid responses to rapidly changing situations. Whereas for years, the default response was to ship in-kind food aid from a grain-exporting nation to the crisis-affected country, the greater range of options has created the need to determine the appropriate responses. As it has become clear that famine is a process, not just an event, more effort has gone into prevention, and that usually means building more resilient households, communities, and livelihood systems. How these efforts are designed and implemented remains somewhat scattered and idiosyncratic.

Learning Goals:

After this session the student will be able to:

- Apply information and analytics to program responses in acute and chronic food insecurity crises
- Relate program and policy responses to food security and nutrition outcomes
- Describe how early or anticipatory action and resilience programming reduces the incidence of acute food insecurity and ensure more rapid recovery

Required Reading:

Weingärtner, Lena, and Emily Wilkinson. "Anticipatory Crisis Financing and Action: Concepts, Initiatives and Evidence." London: Overseas Development Institute, June 2019.

Maxwell, Daniel, Heather Stobaugh, John Parker, and Megan McGlinchy. "Response Analysis and Response Choice in Food Security Crises: A Roadmap." HPN Network Paper. London: Humanitarian Practice Network, Overseas Development Institute, February 2013.

Hedlund, Kerren, Nisar Majid, Dan Maxwell, and Nigel Nicholson. "Final Evaluation of the Unconditional Cash and Voucher Response to the 2011–12 Crisis in Southern and Central Somalia: Executive Summary." Humanitarian Outcomes, January 2013.

Peters, Katie, and Florence Pichon. "Executive Summary of Crisis Modifiers: A Solution for a More Flexible Development-Humanitarian System?" London: Overseas Development Institute, November 2017.

Cabot-Venton, Courtenay. "The Economics of Resilience to Drought in Ethiopia, Kenya and Somalia." Washington, DC: Centre for Resilience, USAID, 2018.

Recommended Reading:

Levine, Simon, Alexandra Crosskey, and Mohammed Abdinor. "System Failure? Revisiting the Problems of Timely Response to Crises in the Horn of Africa." HPN Network Paper. London: Humanitarian Practice Network, Overseas Development Institute, November 2011.

Béné, Christophe, Stephen Devereux, and Rachel Wheeler Sabates. "Shocks and Social Protection in the Horn of Africa: Analysis from the Productive Safety Net Programme in Ethiopia," 2012.

Watson, Cathy, and Andy Catley. "Livelihoods, Livestock and Humanitarian Response: The Livestock Emergency Guidelines and Standards." HPN Network Paper. London: Humanitarian Practice Network, Overseas Development Institute, December 2008.

WFP. "World Food Programme to Consider Suspension of Aid in Houthi-Controlled Areas of Yemen." May 20, 2019. **and** WFP. "WFP Assistance Rescues Yemen from the Brink but Struggle Continues for Millions." December 16, 2019.

Activity: Q&A on instructor experiences, Book review by a student according to the schedule

Assignments Due: Reading

Session 12. Accountability for Famine (April 22 - FRIDAY)

**** Class meets in Jaharis 118 on this day ****

While much of the literature about preventing, detecting, mitigating, measuring and responding to famine and acute food insecurity are fairly technical in nature, famine and crises of lesser severity are first and foremost political phenomena, and the politics of prevention revolve around accountability as much as around technical interventions. To quote one of the articles we will read, "Since at least the mid-1990s, scholars studying famine have identified accountability as the single most important component of the system to prevent, mitigate and respond to famines. Yet by 2011, these mechanisms were not in place..."

Learning Goals:

After this session the student will be able to:

- Explain why accountability is a critical factor to preventing famine and acute food insecurity crises
- Describe what accountability is and how accountability mechanisms ideally function
- Explain why accountability mechanisms are so difficult to put into practice
- Explain the link between understanding famine as a crime and accountability mechanisms

Required Reading:

UNSCR. Resolution 2417: Protection of civilians in armed conflict (2018).

<http://unscr.com/en/resolutions/doc/2417>.

Waal, Alex de. *Mass Starvation: The History and Future of Famine*. Polity Press, 2017. **Review Chapter 2 "Famines As Atrocities."**

Anei, Tong Deng, Alex de Waal, and Bridget Conley. "Accountability for Starvation: South Sudan." Policy Brief. Somerville, MA: World Peace Foundation, 2019.

Dannenbaum, Tom. "A Landmark Report on Starvation as a Method of Warfare." *Just Security* (blog), November 13, 2020. <https://www.justsecurity.org/73350/a-landmark-report-on-starvation-as-a-method-of-warfare/>.

Marcus, David. "Famine Crimes in International Law." *American Journal of International Law* 97, no. 2 (April 2003): 245–81. <https://doi.org/10.2307/3100102>.

Howe, Paul. "Priority Regimes and Famine." In *The New Famines: Why Famines Persist in an Era of Globalization*, edited by Stephen Devereux, 336–62. Routledge Studies in Development Economics 52. London: Routledge, 2009.

Recommended Reading:

Edkins, Jenny. "Introduction." In *Whose Hunger? Concepts of Famine, Practices of Aid*, NED-New edition., 17: xv–xxii. University of Minnesota Press, 2000. <https://www.jstor.org/stable/10.5749/j.ctttsxkq.5>.

Dan Banik. "Is Democracy the Answer? Famine Prevention in Two Indian States." In *The New Famines: Why Famines Persist in an Era of Globalization*, edited by Stephen Devereux, 290–311. Routledge Studies in Development Economics 52. London: Routledge, 2009.

Haan, Nicholas, Stephen Devereux, and Daniel Maxwell. "Global Implications of Somalia 2011 for Famine Prevention, Mitigation and Response." *Global Food Security*, Special Issue on the Somalia Famine of 2011-2012, 1, no. 1 (December 1, 2012): 74–79. <https://doi.org/10.1016/j.gfs.2012.09.003>.

Activity:

Case study exercise

Book review by a student according to the schedule

Assignments Due: Reading

Session 13. The Experience and Societal Impact of Famine and Extreme Food Insecurity (May 2)

After objective and critical descriptions of famines and the dynamics surrounding famines throughout this semester, we now look at famine through the eyes of those experiencing famine. What choices are forced on them and how are these affected by their place in society? What are the long-lasting effects of extreme events like famines on societal norms and generational attitudes to food insecurity? What have we learned and where are the remaining gaps? This session provides a kind of wrap-up on the semester.

Learning Goals:

After this session the student will be able to:

- Describe how famines are qualitatively different from chronic severe food insecurity from the perspective of those experiencing famine.
- Discuss the differences in the experience of famine when the famine is the intentional product of policy.
- Explain how the choices made by individuals during a famine can affect the long-term recovery of individuals, communities, and societal norms.

Required Reading:

Montreal Institute for Genocide and and Human Rights Studies. "Ukrainian Famine Memoirs."

<https://www.concordia.ca/content/concordia/en/research/migs/resources/ukrainian-famine-memoirs.html>.

Select a few short memoirs.

Gráda, Cormac Ó. *Eating People Is Wrong, and Other Essays on Famine, Its Past, and Its Future*. Princeton University Press, 2015. <https://doi.org/10.2307/j.ctv7h0ssr>. **Introduction.**

Xun, Zhou. *Forgotten Voices of Mao's Great Famine, 1958-1962*. New Haven: Yale University Press, 2013. <http://www.jstor.org/stable/j.ctt5vm1tm.1>. Chapter 7.

Majid, Nisar, Guhad Adan, Khalif Abdirahman, Jeeyon Janet Kim, and Daniel Maxwell. "Narratives of Famine: Somalia 2011." Somerville, MA: Feinstein International Center, Tufts University, January 2016.

Conley, Bridget, Kinsey Spears, and Dyan Mazurana. "Chapter 14: Sex, Gender, Age and Famine." In *Accountability for Starvation*, edited by Bridget Conley, Alex de Waal, Catriona Murdoch, and Wayne Jordash. Oxford University Press, Forthcoming.

Recommended Reading:

Macintyre, Kate. "Famine and the Female Mortality Advantage." In *Famine Demography: Perspectives from the Past and Present*, edited by Tim Dyson and Cormac Ó Gráda. Oxford [England]; New York: Oxford University Press, 2002.

Vaughan, Megan. *The Story of an African Famine: Gender and Famine in Twentieth Century Malawi*. Cambridge: Cambridge University Press, 1987. <https://doi.org/10.1017/CBO9780511549885>. **Chapter 5.**

Activity:

Group discussion

Book review by a student according to the schedule

Assignments Due:

Reading

Final "Lessons learned" paper due May 7th at the very latest

The readings in this syllabus are subject to change or modification at the instructors' discretion.