

SIS 620-1 Syllabus

Official Name of Course

Studies in Global Environmental Politics: Global Climate Change

Actual Name of Course

Climate and Social Vulnerability

Spring 2021

Wednesdays 5:30 PM - 8:00 PM

I suspect this will be online!

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Bio: Ribot is a professor of environmental politics with a focus on climate and vulnerability. He taught in the Department of Geography at University of Illinois in Urbana-Champaign from 2008 to 2018. Before 2008, he was a senior associate of the World Resources Institute, and taught in the Urban Studies and Planning department at MIT. He is an Africanist studying local democracy, resource access and social vulnerability.

Course Description

Vulnerable, at risk, prone, fragile, precarious – coping, secure, adapted, resilient. What do these terms mean? How do they and the concepts behind them inform our approach to reducing the likelihood of damage in the face of climate stress? Climate extremes and climate change call for and justify policies to protect exposed and sensitive individuals and groups. Why, however, are these people vulnerable in the first place? How does gender, ethnicity, race, caste, class, religion, place of origin, age, profession, education shape people's risk? Who is vulnerable and how did they come to be exposed and sensitive? We live in a world of haves and have nots, of the secure and insecure, the included and excluded. What processes generate extreme precarity for some? People need protection from storms and droughts. But to protect them we need to understand why they are vulnerable so we can treat the social and political-economic causes behind their vulnerability – the forces within society that expose them and push them to the edge. Without vulnerability, natural events are manageable. With vulnerability, these events become 'hazards' that can push people over that edge – off the cliff of precarity. This course focuses on the social roots and the reduction of vulnerability. We will explore: 1) causes of climate-related vulnerability; and 2) practices and policies designed to reduce economic loss, hunger, famine and dislocation in the face of climate trends and events.

Analysis of the causes of disaster is also socially and politically fraught. Causal analysis links damages to responsibility, blame and liability. Analytic frameworks for evaluating the cause of climate-related vulnerability are, thus, contested. But cause also indicates potential solutions. As explore frames and methods for the causal analysis of climate-related vulnerabilities, we will discuss this tension around causal analytics. We will focus on the multiple policy scales that affect vulnerabilities of poor and marginal populations, drawing on cases primarily from the developing world – although applicable everywhere. The course provides students with a critical theoretical base and policy-analytic skills applicable to increasing security and wellbeing of the poor. The project for this seminar-style course will be the writing of a policy-brief or a research proposal.*

* Listed Description (a relic of an earlier teaching): "An interdisciplinary look at the history, science, policy, and politics of preventing global climate change. This course, for non-specialists as well as environmental studies students, focuses on how we created one of humanity's biggest problems and how to solve it, particularly through education, communications, organizing, and advocacy." This description is not relevant to the current course.

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Course Assignment

Course Assignment Summary (detailed descriptions in Annex A)

- Weekly readings – you must read the assigned readings.
- Weekly written comments on readings to submit on ‘blackboard’ *and* e-mail (to Ribot@American.edu). Include at least one discussion question. Also include in it a quote from the readings that surprised or struck you. Due at noon one day prior to the day of class.
- 3000-word (maximum) research proposal (not including bibliography, budget and work plan). Abstract due Week 4. Final project due in final class.

Obtaining Weekly Assigned Readings

All required readings are available on blackboard or their URL is in this Syllabus. If they are not available or you cannot access them on the system, you are responsible to let me know (e-mail me) so I can fix the problem or send you a copy. Most should also be accessible through the library system, even if you cannot get them on blackboard. Note that the readings may be changed as we go along – as we discover new and interesting readings to include and as our focus develops, we may drop some readings. Changes in the readings will be announced in class.

Grading

Assignment	% of Grade	N.B.
Weekly 1-paragraph of comment and questions on readings	20% (2% each)	You can miss 4 without penalty – extra credit for handing in all of them
Term Paper	45%	
Term-paper Presentation	15%	Includes your 1000-word overview
Participation in class	20%	Includes discussant roles

Fifty percent of the grade in each assignment is based on the instructor's judgment of progress of students *from where each of you start* at the beginning of the semester and the *effort* you put into learning. The grades will then be based on resulting assignment scores. The course is not graded on a curve, thus it is not possible to give a grading chart.

Class and Assignment Schedule

Week 1 (12 January): Introduction – Reading Vulnerability

Introduction

- Structure of the Course – the Syllabus
- Focus on the Rural Developing World
- Assignments
 - Discussant Roles
 - Written Commentaries
 - Term Papers
- What is vulnerability – your understandings

Exercise: Before this initial class session, please read one academic or journalistic articles that you can find online or in newspapers on climate and ‘vulnerability’. Be prepared to tell us about what you read. Pay specific attention to how the author(s) define(s) vulnerability and what her/his/their assumptions are about the causes of vulnerability. Also, come in with a definition of vulnerability that *you* think is intuitively obvious and perhaps even operationalizable such that you could use it to study vulnerability (i.e. defined in such a way that you could identify and measure ‘vulnerability’ if you saw it).

- What is vulnerability – my understanding, framings
 - Definitions of Vulnerability
 - Identifying Vulnerability
 - Quantifying Vulnerability
 - Explaining Vulnerability
 - Effects and Functions of Vulnerability
 - IPCC
- Reading Vulnerability
 - Multiple meanings derived from context – indicator or analytic & which analytic
- Assign Next Week’s Discussants for “What is Vulnerability”
- Today’s readings on Covid – how do we think about the causes of vulnerability?

Climate Vulnerability in America – Covid as Revelatory Crisis

Required Readings on Race, Crisis and the Climate – Covid as Revelatory Crisis

Page Count: 8+2+3=13 pages.

- Plumer, Brad and Nadja Popovich. 2020. How Decades of Racist Housing Policy Left Neighborhoods Sweltering, *New York Times*, Aug. 24, 2020.

<https://www.nytimes.com/interactive/2020/08/24/climate/racism-redlining-cities-global-warming.html>. Pp. ~8

- Thomas, Adelle and Rueanna Haynes. 2020. Black Lives Matter: the link between climate change and racial justice. Climate Analytics. 22 June 2020. <https://climateanalytics.org/blog/2020/black-lives-matter-the-link-between-climate-change-and-racial-justice/>. Pp.~2
- Williams, [Vanessa](#). 2020. A poll finds African Americans and Latinos are more worried about the coronavirus; a public health expert explains why https://www.washingtonpost.com/nation/2020/03/27/poll-finds-african-americans-latinos-more-worried-about-covid-19-doctor-explains-why/?utm_campaign=wp_post_most&utm_medium=email&utm_source=newsletter&wpisrc=nl_most. Pp. ~3

Lecture: From Hazards to Vulnerability

I will present a case of Migration from Senegal to Europe based on my recent research. The objective is to Define Vulnerability and Illustrate Causal Chains.

- Ribot, Jesse. 2018. Climate Refugees. Four-minute video. ICLD: <https://vimeo.com/292115641>

Week 2 (19 January): What is Vulnerability? How is it Related to Climate?

Where do different authors locate vulnerability? How do they define vulnerability? What do they view as being vulnerable? To what are those who are vulnerable, vulnerable? What does each of these authors consider the 'social' question concerning climate and climate change to be? This set of readings includes examples and arguments that support the need for a clear definition and understanding of the theoretical and historical underpinnings of vulnerability. Read them for the kinds of definitions of vulnerability-related terms (risk, vulnerability, precarity, fragility, adaptation, resilience, exposure, sensitivity, hazard) implicit or explicit in their writings. Read them for where they place risk itself – the origins of danger.

Required Readings (suggested additional readings for each week are in endnotes)^{1,2}

Page Count: 7+8+16+16+18 = 74 pages.

- Chambers, R. 1989. Vulnerability, coping and policy. In: R. Chambers (ed). *Vulnerability: How the poor cope*. *IDS Bulletin*, 20 (2), 33-40. Pp. 7
- Swift, J. 1989. Why are rural people vulnerable to famine? *IDS Bulletin*, 20 (2), 8-15. Pp. 8

- O'Brien, K., S. Eriksen, L.P. Nygaard and A. Schjolden. 2007. Why different interpretations of vulnerability matter in climate change discourses. *Climate Policy*, Vol. 7, 73-88. Pp. 16
- Liverman, D. 2015. Reading Climate Change and Climate Governance as Political Ecologies. Pp. 303-319 in *The Routledge Handbook of Political Ecology*. See: https://liverman.faculty.arizona.edu/sites/liverman.faculty.arizona.edu/files/2018-06/Liverman%202015%20Reading%20climate%20as%20political%20ecology_1.pdf Pp. 16
- Thomas, Kimberley, R. Dean Hardy, Heather Lazrus, Michael Mende, Ben Orlove, Isabel Rivera-Collazo, J. Timmons Roberts, Marcy Rockman, Benjamin P. Warner, Robert Winthrop. 2019. "Explaining differential vulnerability to climate change: A social science review," *WIREs Climate Change* 10:e565. Open Access: <https://onlinelibrary.wiley.com/doi/epdf/10.1002/wcc.565>.[Pp. 18.

Animation: The [#GlobalPOV](#) Project: "Can Experts Solve Poverty?" With Khalid Kadir. To view at home: <https://www.youtube.com/watch?v=8jqEj8XUPlk&feature=youtu.be>.

Week 3 (26 January): Central Concepts I: Entitlements

In this class we discuss the basic elements of the entitlements approach to the analysis of vulnerability. There are basically three approaches you will come across in your readings. Hazards literature characterizes the consequences of events on static communities. They view risk as being an attribute of a hazard (event or trend). The entitlements literature gives us a basis for understanding the social and political-economic causes of risk, viewing risk as residing within social organization (rather than as something that comes from the sky). Integrated approaches build on entitlements (using the 'livelihoods' literature) while exploring the links between social organization and context.

Required Readings^{3,4,5}

Page Count: 32+17+24+20+10++8+10 = 126 pages. + Proposals:

- Drèze, J. and A. Sen. 1989. *Hunger and public action*. Oxford: Clarendon. Pp. 32
 - Ch 1: Introduction. Pp. 3-19.
 - Ch 2: Entitlements and Deprivation. Pp. 20-34.
- Appadurai, A. 1984. How Moral Is South Asia's economy – A review article. *Journal of Asian Studies*, 28 (3), 481-497. Pp. 17
- Soloway, J.S. 1994. "Drought as a 'Revelatory Crisis': An Exploration of Shifting Entitlements and Hierarchies in the Kalahari, Botswana" *Development and Change*, Vol. 25 (1994). 471-95. Pp. 24.

- Weheliye, Alexander G. 2014. *Habeas Viscus: Racializing Assemblages, Biopolitics, and Black Feminist Theories of the Human*. Durham: Duke University Press. Introduction. Pp. 8.
- Lappe, Frances Moore. 2013. "Beyond the scarcity scare: reframing the discourse of hunger with an eco-mind," *The Journal of Peasant Studies*, Vol. 40, No. 1, Pp. 219–238. Pp 20.

West Bengal Famine 10-minute video: <https://www.youtube.com/watch?v=9hH0DTy77FE> – watch this at home before reading Sen. This is a very famous famine and it is the famine that Amartya Sen based his analysis of the causes of famine.

Research Proposal Assignment Discussion

Required Reading Sample Research Proposals (to be e-mailed to class list)

- Colette – approximately 10 pages
- Fischer – approximately 10 pages
- Adam Przeworski and Frank Salomon. *The Art of Writing Proposals*
- Discuss assignment for next week

Week 4 (2 February): Central Concepts II: Capabilities

Entitlements theory is powerful and useful. It does not, however, take everything into account. It has some limits that researchers on risk and famine should be aware of. This week's readings aim to highlight some variables that are otherwise beyond the scope of an entitlements analysis. In particular, entitlements theory carries certain limited ideals of property, law and justice. Where are the limits of these? Sen introduced 'capabilities' as his way around these limits. What are the limits to the capabilities approach? Both entitlements and capabilities are frequently evoked in international development interventions and in the climate vulnerability and adaptation literature, so understanding these approaches and being aware of their limitations is crucial when we think about climate change and adaptation.

Required Readings on *Entitlement Critiques & Capabilities*⁶

Page Count: 18+3+15++15+22+21 = 94 pages.

- Sen, A. 1984. Rights and capabilities. In: A. Sen (ed). *Resources, values and development*. Oxford: Basil Blackwell, pp. 307-24. Pp. 18
- Sen, Amartya. 1997. Editorial: Human Capital and Human Capability *World Development* Vol. 25, No. 12, pp. 1959-1961. Pp. 3
- Osmani, S.R. 2005. Poverty and Human Rights: Building on the capability approach. *Journal of Human Development*, 6(2), 205-219. Pp. 15

- Gasper, D. 2013. Climate change and the language of human security. *Ethics, Policy & Environment*, 16(1), 56-78. Pp. 22 [This article is included to introduce the Human Security approach.]
- Nussbaum, M. 2001. Adaptive preferences and women's options. *Economics and Philosophy*, 17, 67-88. Pp. 21.

PROJECTS: Please submit a 150-word abstract of your intended project

Please specify your research question and case to be studied (or for UGs assignment, specify your policy brief or review topic) and why it is important or interesting. Be specific. Your problem needs to be something that can be studied in the real world or assessed and evaluated and responded to in the real world. Please also include a bibliography with at least five key documents you will use for background – add a line under each that says what you expect to use that article/document for. I will provide feedback over the next two weeks. Be prepared to informally present your project idea in class – tell us your main question or issue and why you think it is interesting.

Lecture on Proposal Writing

Week 5 (9 February): Central Concepts III: Vulnerability, Scale and Framing

How do we approach the analysis of vulnerability? How do we expand out from *Entitlements* and *Capabilities* to include the larger political economy? Where do we start? At what scales of space and time matter? What factors – human agency, discourse, class analysis, etc.

Required Readings on Vulnerability Definitional Quibbles and Cause:

Page Count: 2+4+19+2+16+21+2+16+9+9 = 100

- O'Keefe, P., K. Westgate and B. Wisner. 1976. Taking the naturalness out of natural disasters. *Nature*, 260, 566-567. Pp. 2
- Smith, N. 2006. There is no such thing as a natural disaster on SSRC's website on *Understanding Katrina*: <http://understandingkatrina.ssrc.org/Smith/>. Pp. 4
- Connolly, W.E. 2013. *The Fragility of Things*. Durham: Duke University Press. Prelude "1755", pp. 1-19. Pp. 19
- Bankoff, G. 2001. "Rendering the World Unsafe: 'Vulnerability' as Western Discourse" *Disaster*. Vol. 25, no. 1, pp. 19-35. Pages = 16
- Patel, Raj and Jason W. Moore. 2017. *A History of the World in Seven Cheap Things: A Guide to Capitalism, Nature and the Future of the Planet*. Berkeley: University of California Press.

- Introduction, pp. 1-43; Ch. 1: Cheap Nature, pp. 44-63; Ch. 7: Cheap Lives, pp. 180-201. PP. 21
- Bourdieu, P. 1997. La précarité est aujourd'hui partout: Intervention lors des Rencontres européennes contre la précarité. Grenoble. 12-13 décembre 1997. *Contre-feux*, Ed. Liber Raisons d'agir, Grenoble. [available online: http://natlex.ilo.ch/wcmsp5/groups/public/--ed_dialogue/---actrav/documents/meetingdocument/wcms_161352.pdf]. Pp. 2 [If you do not read French, someone who does will explain the piece in class.]
- Uson, Maria Angelina. 2017. "Natural disasters and land grabs the politics of their intersection in the Philippines following super typhoon Haiyan." *Canadian Journal of Development Studies*. Pages 414-430 | Received 02 May 2016, Accepted 28 Nov 2016, Published online: 03 May 2017. Pp. 16
- Turner, M.D. 2016. Climate vulnerability as a relational concept. *Geoforum*, 68, 29-38. Pp. 9
- Chhotray, V. 2014. Disaster Relief and the Indian State: Lessons for Just Citizenship. *Geoforum*. Pp. 9

Discussion of your abstracts and your projects

Week 6 (16 February): Structure and Agency in Vulnerability Analysis

When explaining the causes of anything, both agency and structure will emerge. They operate at different scales of analysis. How do different framings count for them and relate them to each other? This set of readings is rather general – relations of scale. Think about what the implications are of emphasizing (or ignoring) one frame or scale over another in an analysis of the causes of climate-related vulnerability. How would such narrow focuses or omissions shape how we understand cause and how policy is created in order to treat climate related vulnerabilities? Also think about how scale, structure and agency are linked to responsibility, liability and blame.

Required Readings on Scale, Framing and Structure-Agency Debates⁷

Page Count: 24+8+6+20+9+9+10+12 = 98 pages.

- Galtung, J. 1969. Violence, peace, and peace research. *Journal of Peace Research*, Vol. 6, 167-91. Pp. 24
- Weheliye, Alexander G. 2014. *Habeas Viscus: Racializing Assemblages, Biopolitics, and Black Feminist Theories of the Human*. Durham: Duke University Press.
 - Introduction. Pp. 8
 - Ch. 7, Deprivation: Hunger. Pp. 6
- Farmer, P. 2004. An Anthropology of Structural Violence. *Current Anthropology*, 45(3), 305-25. Pp. 20

- Forsyth, T. 2001. Critical realism and political ecology. In A. Stainer and G. Lopez (eds). *After postmodernism: critical realism?* London: Athlone Press, pp. 146-154. Pp. 9
- Hulme, M. 2010. Cosmopolitan climates: Hybridity, foresight and meaning. *Theory, Culture & Society*, 27(2-3), 267-276. Pp. 9
- Lave, R. 2015. Reassembling the structural: Political ecology and actor-network theory. Ch. 16, pp. 213-23 in Tom Perreault, Gavin Bridge, James McCarthy (eds.) *The Routledge Handbook of Political Ecology*. London: Routledge. Pp. 10
- Beck, U. 2010. Climate for change, or how to create a green modernity? *Theory, Culture & Society*, 27(2-3), 254-266, Pp. 12

Discussion of your abstracts and your projects

PROJECTS: Scheduling of Project Discussions

Project discussions will be 30 minutes each with assigned discussants for the remainder of semester – see instructions in Annex A. **Be certain to distribute your 1000-word overview a week in advance of your scheduled project discussion** time.

NOTE ON PROJECT: Each of you may submit a full draft of your project any time between now and the end of the semester for feedback. You can also come to talk your project over in my office hours. You are not required to submit a draft, but each of you is allowed to submit one draft when you think it most useful for the development of your project. Do not wait until the last two weeks—I will not have time. If we have fewer people in the class we will make more time per presentation & vice versa.

Presentation Schedule Table – 18 presentations

Week: Date	Presenter 1 + Discussant	Presenter 2 + Discussant	Presenter 3 + Discussant
Week 8			
Week 9			
Week 10			
Week 11			
Week 12			
Week 13			

Week 7 (23 February): To Be Reworked

Intergovernmental Panel on Climate Change – IPCC

Frameworks have been developed and continue to be developed for the analysis of risk/vulnerability /adaptation/resilience. IPCC is the most influential group in climate change research. What do their assumptions and framings imply? Read these documents for how they define and analyze vulnerability – as well as the stated and implied causes they evoke. In the

two 2012 IPCC SREX chapters and the one assigned from IPCC 2014, count the number of times they use the word *vulnerability* to refer to “*who* is vulnerable,” how many times they use it to refer to “*why* they are vulnerable.” What do they mean when they analyze cause (i.e. the ‘why’). You are all now well enough versed in vulnerability analytics to be able to identify, if they exist, any instances in which these reports discuss vulnerability as more than a condition (a phenomenon that they use as an indicator, such as poverty or marginality), versus a discussion of the historical and social or political-economic causes of those (and other) conditions. Where do they locate cause??? Is it in notions like ‘demographics’ or ‘economic growth’ or ‘bad policy’ or do they go further. What do they say in these documents about ‘causality’ and in particular, about the political-economic and social causes of the precarity they are ostensibly identifying? Also, are they also using vulnerability in other senses? For their current definitions, glance at the most recent IPCC Glossary in this endnote (do they contrast with those in 2014?).⁸ Please also comment on the definition of vulnerability in the 2019 Human Rights Council report.

Note the evolution of the term “Vulnerability” in IPCC. In the 4th Assessment Report, 2007 (which you are not reading), the definition was: “Vulnerability is the degree to which a system is susceptible to, and unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate change and variation to which a system is exposed, its sensitivity, and its adaptive capacity.” 5th Assessment defined it as “The propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts and elements including sensitivity or susceptibility to harm and lack of capacity to cope and adapt.” The most recent reports are defining it as “The propensity or predisposition to be adversely affected.” What is changing?

Required Readings on Vulnerability in IPCC Reports

Page Count: 39+34+50+3+3 = 129 pages.

- IPCC (SREX). 2012. Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change (Field, C.B., V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor, and P.M. Midgley, eds.). Cambridge University Press, Cambridge, UK, and New York, NY, USA, 582 pp. See: https://www.ipcc.ch/site/assets/uploads/2018/03/SREX_Full_Report-1.pdf
 - Ch. 1: Lavell, A., M. Oppenheimer, C. Diop, J. Hess, R. Lempert, J. Li, R. Muir-Wood, and S. Myeong. Climate change: new dimensions in disaster risk, exposure, vulnerability, and resilience. Pp. 25-64 = Pp. 39.
 - Ch. 2: Cardona, O.D., M.K. van Aalst, J. Birkmann, M. Fordham, G. McGregor, R. Perez, R.S. Pulwarty, E.L.F. Schipper, and B.T. Sinh, 2012: Determinants of risk: exposure and vulnerability. In: Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation. Pp. 65-108 – Pp. 34.
 - *Vulnerability* ≡ The propensity or predisposition to be adversely affected.

- IPCC. 2014. Chapter 19 in Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L.White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 1132 pp. https://www.ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-PartA_FINAL.pdf. Read Chapter 19, pp. 1039-1099. Pp = 50
 - *Vulnerability* ≡ The propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts and elements including sensitivity or susceptibility to harm and lack of capacity to cope and adapt.
- Barrott, Julia. 2019. Applying the IPCC 2014 framework for hazard-specific vulnerability assessment under climate change. Report to WeAdapt. Published in Environmental Research Communications. <https://www.weadapt.org/knowledge-base/sdc-climate-change-environment-network/applying-the-ipcc-2014-framework-for-hazard-specific-vulnerability-assessment>. Pp = ~3
- Human Rights Council. 2019. Draft Report of the Special Rapporteur on extreme poverty and human rights on “Climate change and poverty.” Read Pp. 9-11 on “Understanding the Failure to Act.” [Q: Can we count failure to act as elements of causality?] Click on: [Extreme poverty and human rights](#). Or search online. Pp = 3

Special Weekly Reading Assignment: This week please hand this in as your weekly comment [not optional for this week] on the readings a one-page essay your answers to the above questions about the term vulnerability in the IPCC 2007 and 2014 reports. Please cite the page numbers from which you draw your observations. Submit by e-mail by noon on the day of this class session.

Related Readings on Operational Vulnerability Definitions in IPCC

Week 8 (2 March): Central Concepts IV: Vulnerable Livelihoods – Bringing in the Environment

This section outlines an approach to analyzing the causal structures of vulnerability in the face of environmental variability and change. How do we take environment and social forces into account? What are the gender, class, caste, ethnic and other social divisions along which vulnerability is differentiated and produced and reproduced? How do we identify the causes of that vulnerability? How do different authors ‘bring the environment’ into an entitlements or a broader political-economy approach? Livelihoods approaches are widely used in the analysis and treatment of poverty, vulnerability and the enhancement of ‘adaptation’ and ‘adaptive capacity’

(to be discussed in more detail next week). What does a livelihoods approach contribute to an understanding of the causes and persistence of vulnerability? How does this approach help to identify pathways toward reduced vulnerability? The Environmental Livelihoods literature deals with these issues of social stratification in access to and dependence on the environment. These articles will give us an opportunity to explore different theoretical approaches with different mixes of agency and structure behind them.

Required Readings^{9,10}

Page Count: 24+23+26+5 = 78 pages.

- Bebbington, A. 1999. Capitals and capabilities: A framework for analysing peasant viability, rural livelihoods and poverty. *World Development*, 27(12), 2021-44. Pp. 24
- Leach, M., R. Mearns and I. Scoones. 1999. Environmental entitlements: Dynamics and institutions in community-based natural resource management. *World Development*, 27(2), 225-247. Pp. 23
- Agrawal, A. 2010. The role of local institutions in adaptation to climate change. In: R. Mearns and A. Norton (eds). *Social dimensions of climate change: Equity and vulnerability in a warming world*. Washington, DC: The World Bank, pp. 173-198. Pp. 26. Available at: <http://documents.worldbank.org/curated/en/2009/01/11486596/social-dimensions-climate-change-equity-vulnerability-warming-world>
- Kashwan, Prakash. 2020. "American environmentalism's racist roots have shaped global thinking about conservation." *The Conversation*. September 2, 2020. <https://theconversation.com/american-environmentalisms-racist-roots-have-shaped-global-thinking-about-conservation-143783>. Pp.~5

Discussion: Projects – on research and writing

Week 9 (9 March): *No Class Spring Break*

Week 10 (16 March): Progressive Contextualization as Method: Access or Actor Networks?

How do we analyze the causes of vulnerability? Earlier readings frame its components, but how do we move from identifying vulnerability to explaining it? Explanation is one way of identifying potential solutions. It is not the only way. Think through how useful explanation is in helping us to reduce vulnerability. What helps us respond? Identification? Explanation? Innovation? Under what conditions do these different approaches help?

Required Readings on Method^{11,12}

Page Count: 26+13+16+18++15+10 = 98 pages

- Watts, M.J. and H. Bohle. 1993. The space of vulnerability: The causal structure of hunger and famine. *Progress in Human Geography*, 17(1), 43-68. Pp. 26
- Bennett, A. 2010. Process tracing and causal inference. Ch. 10 in Henry Brady and David Collier (eds.). *Rethinking Social Inquiry*. Rowman and Littlefield. Pp. 13
- Cronon, W. 1992. A place for stories: Nature, history, and narrative. *The Journal of American History*, (March), 1347-1376. Pp. 29
- Lund, Christian. 2014. "Of What is This a Case?: Analytical Movements in Qualitative Social Science Research." *Human Organization* 73(3): 224-234. Pp. 10

PROJECTS: Project Discussions (40 minutes each with assigned discussant)

Week 11 (23 March): Adaptation & Resilience – Solutions

This class elaborates the concepts of 'adaptation' and 'resilience'. What becomes of vulnerability in this literature? To what degree does the forward-looking gaze of adaptation occlude the causes of vulnerability? Think about where adaptation shifts the focus toward or away from issues that the vulnerability analytic framings focus on. How do these adaptation framings bring power into play or obscure power issues? What happens to issues of causality and responsibility as one moves toward an adaptation framework? With the resilience readings, think about how to identify theories and definitions implicit in articles and books on climate and vulnerability or adaptation. Also try to catalogue in your minds the different ways in which human and ecological systems are linked by the different authors. Interrogate implicit social and political economic theories in these analysts' writings. What are the social theories behind discussions of adaptation and resilience? Does a 'systems' approach bring in broader political-economic and social dynamics? What does it capture and what does it miss?

Readings on Adaptation and Resilience

Page Count: 3+3+11+11+14+17+9 = 70 pages

Required Readings on Adaptation^{13,14}

- Oliver-Smith, A. 2013. A matter of choice (editorial). *International Journal of Disaster Risk Reduction*, 3, 1-3. Pp. 3
- Morrissey, J. 2014. Addressing the political deficit in climate adaptation. *Aljazeera*, 19 May 2014. See: <http://www.aljazeera.com/indepth/opinion/2014/05/climate-adaptation-africa-2014519103948475231.html> Total = about 3 pages.
- Watts, M.J. 2011. Planet of the wageless. *Identities: Global Studies in Culture and Power*, 18(1), 69-80. Pp. 11 [Brings adaptation into labor relations in a neoliberal framing.]
- Basset, T. and C. Fogleman. 2013. "Déjà vu or Something New? The adaptation Concept in the Climate Change Literature," *Geoforum* 48, pp. 42-53. Pp. 11

Required Reading on Resilience¹⁵

- Folke, Carl. 2006. "Resilience: The Emergence of a Perspective for Social-Ecological Systems Analysis," *Global Environmental Change* 16(3):253-67. Pp. 14
- Beymer-Farris, B.A., T.J. Bassett and I. Bryceson. (2012). Promises and pitfalls of adaptive management in resilience thinking: The lens of political ecology. Ch.16, pp. 283-299 in T. Plieninger and C. Bieling (eds). *Resilience and the cultural landscape*. Cambridge: Cambridge University Press. Pp. 17
- Watts, Michael J. 2015. "Adapting to the Anthropocene: Some Reflections on Development and Climate in the West African Sahel," *GeoJournal* 53(3):288-97. Pp. 9

PROJECTS: Project Discussions

Week 12 (30 March): Climate, Hunger and Democracy

Does democracy reduce vulnerability? If so, how? This set of readings addresses the role of democracy in climate-related crises. Amartya Sen (1981) hypothesized in a comparison of India and China that India had fewer famines due to democracy. Is there more evidence on this relation than in his initial two country comparison?



Page Count: 36+16+18+13 = 83

- Besley, Timothy and Robin Burgess. 2002. "The Political Economy of Government Responsiveness: Theory and Evidence from India." *The Quarterly Journal of Economics*, November. Pp. 1415-1451. Pp. 36
- Warren, M. (1992). Democratic theory and self-transformation. *American Political Science Review*, 86(1), 8-23. Total = 16 pages.
- Näsström, S. and S. Kalm. 2014. "Democratic Critique of Precarity" *Global Discourse*. Pp. 1-18. PP. 18
- Fraser, N. 2013. A triple movement? Parsing the politics of crisis after Polanyi. *New Left Review*, 81, 119-32. Pp. 13

PROJECTS: Project Discussions

Week 13 (6 April): Social Contracts and The Precariat

Required Readings on Social Contracts and Vulnerability¹⁶

Page Count: 3+17+16+17 = 53

- Adger, W.N., T. Quinn, I. Lorenzoni, C. Murphy and J. Sweeney. (2013). Changing social contracts in climate-change adaptation. *Nature Climate Change*, Vol. 3, 330–333. Pp. 3 [Responsibility – Also relevant to next class.]
- O’Brien, K., B. Hayward and F. Berkes. 2009. Rethinking social contracts: Building resilience in a changing climate. *Ecology and Society*, 14 (2), Article 12. Total = 17 pages.
- Monck, R. “The Precariat: A View from the South” *Third World Quarterly* 34:5, pp. 303-319. Pp. 16
- Pelling, M. and K. Dill. 2009. Disaster Politics: Tipping points for change in the adaptation of Socio-political Regimes. *Progress in Human Geography* 1-17. Pp. 17.
<https://doi.org/10.1177/0309132509105004> [Post disaster relief politics of legitimation.]

PROJECTS: Project Discussions

Week 14 (13 April) On Responsibility and Response: Cause and Blame in the Anthropocene?

Nobody has the right to obey
- Hannah Arendt



While we want to understand cause in order to identify solutions. Cause is contentious because it can lead to responsibility, blame and liability. Responsibility is key, however, to response. This section is designed to help us think through the relation between cause and response as it is also about responsibility – and thus it is contentious and often then pushed out of conversations. Nobody likes the fingers pointed at them. So, nobody wants causal analyses that make them responsible or liable. This means that causes are often hidden in ways that make solution difficult. Here we will discuss this contentious arena in which the social, via the denial of causality, becomes another part of the cause of climate-related crises.

Required Reading on Responsibility¹⁷

Page Count: 1+5+13+3+18+26+17+20 = 103

- Taddei, R. 2008. Blame: The hidden (and difficult) side of the climate change debate. *Anthropology News*, pp. 45-6. Pp. 1

- Ferguson, J. (2012). Structures of responsibility. *Ethnography* 13(4), 558-562. Total = 5 pages.
- Castree, N. 2014. The Anthropocene and Geography I: The back story. *Geography Compass*, 8(7), 436-449. Pp. 13
- Orlove, B., H. Lazrus, G.K. Hovelsrud, and A. Giannini. 2014. Recognitions and responsibilities: On the origins and consequences of the uneven attention to climate change around the world. *Current Anthropology*, 55(3), 249-75. Pp. 26
- Rudiak-Gould, P. 2015. The social life of blame in the Anthropocene. *Environment and Society: Advances in Research*, 6, 48-65. Pp. 17
- Schwartz, Scott W. 2019. "Measuring Vulnerability and Deferring Responsibility: Quantifying the Anthropocene," *Theory, Culture and Society* 36(4):73-93. Pp. 20

PROJECTS: Project Discussions

Week 15 (20 April): Concluding Discussion

PROJECTS: Final project is due in class on 20 April electronically via e-mail to Ribot@American.edu.

Annex A: Course Assignments

Comments on Weekly Readings

Weekly comments on the readings should touch on each article and should not exceed one page per week (minimum 12-point font, single spaced, 1.5-inch margins). Please try to evoke in your comments:

- a. What do the articles contribute to theory – what is new in them?
- b. What are the interesting hypotheses or research questions the articles evoke?
- c. Vis-à-vis your own interests, what do you find surprising, new and interesting in the articles, and why?
- d. What are some strengths and shortcomings of the articles?
- e. Compare and contrast the arguments or theoretical positions of the articles where possible.
- f. What was incomprehensible to you in the articles? What did you not understand?
- g. From the readings, please identify a memorable quote each week that surprises or strikes you.

This assignment is designed so that you come in with good discussion questions grounded in the readings. One paragraph is enough. One page is the maximum. The required readings must all be read each week. You should touch on as many as you can in your comment, but if you

have something more to say about one or two or you want to contrast two, that is fine. Just be certain to have read everything – without doing so you may be lost in the discussions.

Writing Project (All written products must be a 12-pt font minimum)

The writing assignment for this course is a **Term Paper** in the form of a **3000-word policy-research proposal**.

Everyone must submit a 150-word description of your intended project on 18 September. Please specify the problem (and why it is important or interesting), the research question, approach and case to be the focus of your research proposal. Please also include a bibliography with at least ten key documents you will be citing.

Presentation of your Written Assignment: You will also be asked to present your written project in class. Presentation structure is also described below – after the assignment descriptions.

A Policy Research Proposal

This project requires:

1. developing a policy research question or hypothesis;
2. locating it within the literature;
3. explaining its broader policy significance (that is, making it clear why anyone should care about what is being investigated and what might be found);
4. explaining what data are necessary for answering the question;
5. explaining the methods to be employed for obtaining and analyzing the data (i.e. tracing out how empirical observations will be related to the question or hypothesis);
6. estimating a timeline; and
7. estimating funding needs.

A policy research question addresses an unresolved problem (related to climate adaptation or vulnerability reduction) that has policy relevance. The question must also have theoretical relevance—let us know how answering it will contribute to the broader understanding of this problem for instances other than your particular case. At a minimum, your proposal should identify a problem where better understanding or information is likely to help us to formulate a better solution.

A typical policy-research proposal has the following components. This is just an example—you can use a different outline if you wish. I suggest that you use the SSRC or NSF formats or the format of a grant you actually intend to apply for (if you do so, the above page limits, font size, and double spacing still apply.)

- I. Abstract—200 words

- II. Introduction
 - a. Problem statement
 - i. What is the problem to be explored
 - ii. Why is it important and to whom is it important
 - b. Summary of debates around the problem
 - c. Summary of hypothesis and research questions
- III. Background—What does the literature have to say about your problem
- IV. Research Questions and Hypotheses
- V. Case
 - a. Where you are going to study your problem
 - b. Why this is an advantageous place for studying your problem
- VI. Methods
 - a. How you get from your questions to answers
 - b. Timeline

One useful way to organize a methods discussion is to break down the problem as follows:

Hypothesis or Primary Research Questions	Operational Questions	Data Required to answer operational questions	Methods for gathering data
<p>Hypothesis 1: Decentralization reforms leads to better representation.</p> <p>Hypothesis 2: More democratic representation leads to more efficient forest management</p> <p>Question: What is the relation between representation and forestry management outcomes before and after decentralization reforms?</p>	<p>How has representation changed over time (before and after decentralization)?</p>	<p>Measure of representation (i.e. accountability plus responsiveness) change over time in each case:</p> <ul style="list-style-type: none"> -Change in accountability -Change in responsiveness -Change in citizen engagement -Change in popular demands being reflected in decisions being taken 	<p>Measures before and after decentralization policy implementation of:</p> <ul style="list-style-type: none"> -Observation of sanctioning by population -Surveys of popular demands -Surveys of decision maker understanding of popular demand -Observation of decision making processes -Decisions (or policies) made
	<p>How have outcomes varied over time (before and after decentralization reforms)?</p>	<p>Measure of outcomes over time</p> <ul style="list-style-type: none"> -Change in forest management -Change in hectares under management -Quality of forest health -Change in local income from forests 	<ul style="list-style-type: none"> -Observation and historical interviews concerning change in forest management -Documentation of forest service of forests under management -Transect studies of ligneous density and species mix before and after decentralization reform

This table is just an example—in the problem definition or background section you would also have to define your variables and explain what theory has to say about the relations—and why you expect a particular kind of relation.

- VII. Budget
- VIII. Bibliography

I suggest that you look up a real research program's call for proposals – such as Fulbright, NSF or SSRC and use their template for your research proposal.

For some literature on proposal writing, see:

- Professor Michael Watts' essay "The Holy Grail: In Pursuit of the Dissertation Proposal" is, well, just that – a "holy grail" – essay dedicated to demystifying the process and offering concrete advice on the dos and don'ts:
<http://iis.berkeley.edu/sites/files/pdf/inpursuitofphd.pdf>
- NSF grant reviewer tells all
<http://www.sciencemag.org/careers/2003/04/nsf-grant-reviewer-tells-all>
- NSF Merit Review – look over.
Criteria that NSF grant reviewers hold the proposals to. Note that these are kind of flexible depending on what discipline and sub-discipline we may apply to. The section "Merit Review Facts" may be useful. http://www.nsf.gov/bfa/dias/policy/merit_review/
- Some useful resources for helping in proposal writing – look over:
<http://iis.berkeley.edu/DissPropWorkshop>
- Lund, Christian. (2014). Of what is this a case? Analytical movements in qualitative social science research. *Human Organization*, 73 (3), 224-34.
- Przeworski, Adam and Frank Salomon. 2008. "The Art of Writing a Proposal."
<http://www.arch.mcgill.ca/prof/adams/arch627/fall2008/pdf/The%20Art%20of%20Writing%20Proposals.pdf>

Class Presentations – How to Structure

Each of you will be expected to present your **written** project to the class. The Wednesday before the class meeting in which you are assigned to present, please distribute a 1000-word MAXIMUM written overview of your project and one article to assign to the class for the day you present. The article must be an article that is not among the assigned readings on this syllabus. Assign a key article for framing your research. Everyone must come to class having read what you distributed. In class you will present your work in less than 10 minutes. Then the class will discuss your work for 20 more minutes.

Please use this outline for your 1000-word overview:

- a. The problem you are addressing and why it matters
- b. The questions you are asking and any hypotheses you may be entertaining
- c. The case study you will examine
- d. The theoretical framing you will employ/interrogate/critique
- e. The data required to ask your question or interrogate your hypothesis
[remember this is a research proposal, so you do not need the data or literature, you need to tell us what *kinds* of data.]
- f. The methods you will use to collect the data you have described.

- g. In addition, please include ten literature sources (not included in the 1000 words).

We will assign a discussant, who, based on your written product and presentation, will give a 5-minute comment. The discussant's role is to give some critical and constructive feedback on your project and to help lead a discussion.

Structure of the sessions:

- Presentation: 15 minutes
- Discussant: 5 minutes
- Discussion: Remaining 20 minutes

Annex B: Some Key Areas not Covered in Class

Justice and Governing

Required Readings

Page Count: 8+16+27+27 = 78 pages.

- Forsyth, T. and T. Sikor. 2013. Forests, development, and the globalization of justice. *The Geographical Journal*, 179 (2), 114-121. Pp. 8
- Forsyth, T. 2014. "Climate Justice is not Just Ice," *Geoforum* 54:230-32.
- Swyngedouw, E. 2005. Governance innovation and the citizen: The Janus face of governance-beyond-the-state. *Urban Studies*, 42 (11), 1991–2006. Pp. 16
- Oldekop, J. A., L.B. Fontana, J. Grugel, N. Roughton, E.A. Adu-Ampong, G.K. Bird, S. Wallin, A. Dorgan, M.A. Vera Espinoza, D. Hammett, E. Agbarakwe, A. Agrawal, N. Asylbekova, C. Azkoul, C. Bardsley, A.J. Bebbington. (2015). *A hundred key questions for the post-2015 development agenda*. Available from: [http://www.unrisd.org/80256B3C005BCCF9/httpNetITFramePDF?ReadForm&parentunid=AC45AB8A6F43AFA2C1257E0E006A9993&parentdoctype=paper&netitpath=80256B3C005BCCF9/\(httpAuxPages\)/AC45AB8A6F43AFA2C1257E0E006A9993/\\$file/100%20questions.pdf](http://www.unrisd.org/80256B3C005BCCF9/httpNetITFramePDF?ReadForm&parentunid=AC45AB8A6F43AFA2C1257E0E006A9993&parentdoctype=paper&netitpath=80256B3C005BCCF9/(httpAuxPages)/AC45AB8A6F43AFA2C1257E0E006A9993/$file/100%20questions.pdf) [accessed Jul 26, 2015]. UNRISD-SIID Working Paper No. 2015-7. Pp. 27
- Osborne, T. 2017. Public political ecology: A community of praxis for earth stewardship. *Journal of Political Ecology*, 24, 843-860. Pp. 27

Food Security & Food Sovereignty

Required Readings:

- Wittman, Hannah. 2009. "Reworking the metabolic rift: La Vía Campesina, agrarian citizenship, and food sovereignty," *Journal of Peasant Studies*, 36: 4, 805 — 826. Pp. 21
- Watts, Michael J. 2013. "Thinking the African Food Crisis," Oxford Handbooks Online.

Oxford: Oxford University Press. See: www.oxfordhandbooks.com

- Watts, Michael J. 2014. "A Political Ecology of Environmental Security," *Environmental Security Vol. XX*, pp. 82-101. Pp. 19
- Agarwal, Bina. 2014. "Food sovereignty, food security and democratic choice: critical contradictions, difficult conciliations," *The Journal of Peasant Studies*, 41:6, 1247-1268, DOI: [10.1080/03066150.2013.876996](https://doi.org/10.1080/03066150.2013.876996) Pp. 21
- Des Gasper. 2014. "Human Security Analysis as a Framework for Value-Oriented Governance: The Example of Climate Change" *International Journal of Social Quality* 4(2), Winter 2014: 6–27, Pp. 21
- Edelman, Marc. 2014. "Food sovereignty: forgotten genealogies and future regulatory challenges," *The Journal of Peasant Studies*, 41:6, 959-978, DOI: [10.1080/03066150.2013.876998](https://doi.org/10.1080/03066150.2013.876998). Pp. 19
- Edelman et al. Food Sovereignty 2015 JPS

Climate Response – Justice, Representation and Human Rights

Rights are central to any policy response to anything. They have a great effect on how policy is made and received. This section gives us some sense of the current reflections on justice in the climate arena. I have added a few readings from a Latourian perspective as objects of critique.

- Erik Swyngedouw. 2013. "The Non-political Politics of Climate Change" *ACME: An International E-Journal for Critical Geographies*, 12(1), 1-8. Pp. 8
- *Bradley C. Parks and J. Timmons Roberts. 2010. "Climate Change, Social Theory and Justice" Theory, Culture & Society*, Vol. 27(2–3): 134–166. Pp. 32
- O'Brien, K. 2006. Are we missing the point? Global environmental change as an issue of human security. *Global Environmental Change*, 16 (1), 1-3. Total = 3 pages.
- Sachs, W. 2008. Climate change and human rights. *Development*, 51, 332-337. Total = 6 pages.
- Walsh-Dilley, M., W. Wolford and J. McCarthy. 2013. Rights for resilience: Bringing power, rights and agency into the resilience framework. Paper prepared for Oxfam America. Read Ch. 5: "Moving forward: Resilience for Social Justice and the Implications for Measurement," pp. 33-36. Total = 4 pages.
<http://www.acsf.cornell.edu/Assets/ACSF/docs/collaborations/oxfam/R4R%20Conceptual%20Framework.pdf>
- Holifield, R. 2009. Actor-network theory as a critical approach to environmental justice: A case against synthesis with urban political ecology. *Antipode*, 41, 637-658. Total = 22 pages.
- Taylor, M. 2014. *The political ecology of climate change adaptation: Livelihoods, agrarian change and the conflicts of development*. London: Earthscan. Total = 10 pages.
 - Conclusion: Adaptation to the World of Adaptation. Pp. 189-198.

Climate Response: Adaptation Policy

These readings familiarize us with climate change policy from the scale of Global Institutions and to the ideas about what climate adaptation policy should and could look like. We will also explore a draft policy handbook from the Responsive Forest Governance Initiative if it is ready for this class.

- Leach, Melissa and Ian Scoones. 2013. "Carbon forestry in West Africa: The politics of models, measures and verification processes." *Global Environmental Change*. Vol. 23, pp. 957-967.
- United Nations International Strategy for Disaster Reduction. 2005. Building the Resilience of Nations and Communities to Disaster: An Introduction to the Hyogo Framework for Action. United Nations International Strategy for Disaster Reduction: Geneva. 'Hyogo Framework for Action 2005–2015.' Total = 6 pages. [Worth reading since it comes up on the other articles and is very technocratic framing – typical of disaster relief.]
- Schipper, E.L.F., 2006. Conceptual history of adaptation in the UNFCCC process. *Review of European Community and International Environmental Law* 16, 82–92. Total = 11 pages.
- Burton, I. S. Huq, B. Lim, O. Pilifosova, and E.L. Schipper. 2002. "From Impact Assessment to Adaptation Priorities: The Shaping of Adaptation Policy." *Climate Policy*, Vol. 2, pp. 145-149. [goes with Schipper 2006, above. Useful for Vulnerability comparative structures proposals]. Total = 5 pages. [Could have lived without this one.]
- McDonald, Robert. 2006. "Sustainable Development as Freedom," *International Journal of Sustainable development & World Ecology* Vol. 13, pp. 445-447. Total = 3 pages. [Not very interesting except last few pages where democracy is traded for conservation. Perhaps could be in a different section on democracy and environment – a first reading.]
- Kelman I, Gaillard J-C (2008) Placing climate change within disaster risk reduction. *Disaster Advances* 1 (3): 3-5. Total = 3 pages. [Great polemic should be read next to the other Gaillard and Mercer article below. Move down or vice versa.]
- Moser, Caroline. 2007. "Introduction" Pp. 1-14 in Caroline Moser, Ed. *Reducing Global Poverty: The Case for Asset Accumulation*. Washington: Brookings Institution Press. Total = 14 pages.
- Prowse, Martin and Lucy Scott. 2008. "Assets and Adaptation: An Emerging Debate" *IDS Bulletin* Vol. 39, No. 4, pp. 42-52. [Cf. Moser] <http://www.odi.org.uk/sites/odi.org.uk/files/odi-assets/publications-opinion-files/3431.pdf>. Total = 11 pages.

- Gaillard J-C, Mercer J (2013) "From knowledge to action: Bridging gaps in disaster risk reduction," *Progress in Human Geography* 37 (1): 93-114. Total = 22 pages. [Excellent piece. Illustrates the struggle to bring vulnerability analysis into climate disaster relief.]

Vulnerability in the Urban Environment: A Focus on Katrina

Although we have already read pieces that discuss vulnerability in cities (e.g. Pelling, Rain), in this class, we will focus on the US context and, in particular, the structural and historical conditions that made Hurricane Katrina such a tragic disaster. No other event in recent past has brought so starkly into relief the complex underlying race and class relations that shape landscapes of risk in urban America.

- Huq, S. et al. 2007. "Editorial: Reducing risks to cities from disasters and climate change. *Environment and Urbanization* 19:3, pp. 3-15.
- Bolin, B. 2007. "Race, Class, Ethnicity, and Disaster Vulnerability" in *Handbook of Disaster Research*, pp. 113-129. Download the references for this chapter at: <http://www.springerlink.com/content/978-0-387-73952-6/contents/>
- Gavin, A. 2008. "Reading Katrina: Race, Space and an Unnatural Disaster." *New Political Science*, 30:3, pp. 325-347
- Smith. N. 2006. "There is no such thing as a natural disaster" on SSRC's website on *Understanding Katrina*: <http://forums.ssrc.org/understandingkatrina/theres-no-such-thing-as-a-natural-disaster/>.
- Peck, J. 2006. "Liberating the City: Between New York and New Orleans. *Urban Geography*, 27: 8pp. 681-713.
- Video: Trouble the Water (2008) – an academy award-nominated documentary film on Katrina (<http://www.troublethewaterfilm.com/>). Available for instant viewing on Netflix.
- Cutter, S. and Emrich, C. 2006. "Moral Hazard, Social Catastrophe: The Changing Face of Vulnerability along the Hurricane Coasts" in *The ANNALS of the American Academy of Political and Social Science*, 604, pp. 102-112.
- Olshansky, Robert B., and Laurie A. Johnson. 2010. *Clear as Mud: Planning for the Rebuilding of New Orleans*. APA Planners Press, Chicago, IL.
- Collection of articles on <http://understandingkatrina.ssrc.org/Smith/>.
- Margeret Somers on Katrina – genealogies of citizenship, markets, statelessness and the right to have rights.

Mitigation/Adaptation—through REDD+

- Lohmann, Larry. 2008. Carbon Trading, Climate Justice and the Production of Ignorance: Ten examples. *Development* Vol. 51(3) pp. 359-365.

- Karsenty, Alain, and Symphorien Ongolo. 2011. Can “fragile states” decide to reduce their deforestation? The inappropriate use of the theory of incentives with respect to the REDD mechanism. *Forest Policy and Economics* xxx (2011) xxx–xxx, pp. 8.
- McAfee, Kathleen and Elizabeth N. Shapiro. 2010. Payments for Ecosystem Services in Mexico: Nature, Neoliberalism, Social Movements, and the State. *Annals of the Association of American Geographers* 100(3): 579–599
- Anderson and Zerriffi TBA
- Sikor, T., et al., 2010. REDD-plus, forest people’s rights and nested climate governance. *Global Environmental Change* 20(3), 423-5.
- PROFOR and FAO. 2011. Framework for Assessing and Monitoring Forest Governance. The Program on Forests of the World Bank and the Food and Agricultural Organization of the United Nations.

Video: The CO2 Alibi by Zembla (The Netherlands) First published 1 August 2008, “Exploring both ends of the carbon market through research and interviews in Uganda and The Netherlands, this video brings new clarity to the debate over climate change solutions.” [English version](#).

Global Policy on Climate and Adaptation

- Oxfam America. Forthcoming. “Adapting to Climate Change: How Building Stronger Communities can Save Lives, Create Jobs, and Build Global Security.” Draft Policy Report. Pp. 34.
- Original text of the UNFCCC and Kyoto Protocol and some IPCC material:
 - UNFCCC: <http://unfccc.int/resource/docs/convkp/conveng.pdf>
 - KP: <http://unfccc.int/resource/docs/convkp/kpeng.pdf>
 - *Intergovernmental Panel on Climate Change*, Geneva. 4th Synthesis report, available Sept. 6, 2007 on the web at <http://www.ipcc.ch/>
- McGray, Heather, Anne Hammill, Rob Bradley, E. Lisa Schipper and Jo-Ellen Parry. 2007. *Weathering the Storm: Options for Framing Adaptation and Development*. Washington: World Resources Institute.
- Coudouel, Aline and Stefano Paternostro. 2005. *Analyzing the Distributional Impacts of Reforms: A Practitioner’s Guide to Trade, Monetary and Exchange Rate Policy, Utility Provision, Agricultural Markets, Land Policy, and Education*. Washington: The World Bank.
- Robin Mearns and Andrew Norton, eds. 2009. *Social Dimensions of Climate Change: Equity and Vulnerability in a Warming World*. Washington, DC: The World Bank.
- Tanner, Thomas. 2008. “Climate Risk Screening of Development Portfolios and Programmes.” *IDS Bulletin*, Vol. 39, No. 4, pp. 87-95.

Vulnerability Measures and Indicators

- Cardona, O.D., M.K. van Aalst, J. Birkmann, M. Fordham, G. McGregor, R. Perez, R.S. Pulwarty, E.L.F. Schipper, and B.T. Sinh, 2012: Determinants of risk: exposure and vulnerability. In: *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation* (Field, C.B., V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor, and P.M. Midgley, eds.). A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change (IPCC). Cambridge University Press, Cambridge, UK, and New York, NY, USA, pp. 65-108. Read section 2.6, pages 89-95. Total = 7 pages.
- Amy Luers, David Lobell, Leonard Sklar, C. Lee Addams, Pamela Matson. 2003. "A Method for Quantifying Vulnerability, Applied to the Agricultural System of the Yaqui Valley, Mexico." *Global Environmental Change*, Vol. 13, pp. 255-267. Total = 13 pages.
- Downing, Thomas E. and Anand Patwardhan. 2005. "Assessing Vulnerability for Climate Adaptation." Technical Paper 3, in Bo Lim, Erika Spanger-Siegfried, Ian Burton, Elizabeth Malone and Saleemul Huq, eds. *Adaptation Policy Frameworks for Climate Change*. Cambridge: Cambridge University Press, pp. 67-89. Total = 23 pages.
- Cutter, Susan L. 1996. "Vulnerability to Environmental Hazards" *Progress in Human Geography* Vol. 20, No. 4, pp. 529-539. [Focus on pp. 533-4 on 'Measurement & Assessment']. Total = 11 pages.

Migration and Risk

Migration is a great opportunity and a risk. It is an option for reducing vulnerability, despite that it reflects vulnerability and generates new vulnerabilities. How do we treat migration in the context of climate change and the analysis of the causes of social vulnerability?

Required Readings on Migration and Risk¹⁸

Page Count: 20+34+9+29 = 92 pages.

- Ribot, J., Papa Faye and Matthew Turner. Forthcoming (2020) 'Climate of Anxiety in the Sahel: Emigration in a Xenophobic Anthropocene', *Public Culture*. Forthcoming, vol. 32 (1). This article was accepted in August 2018. This journal is very slow. If you would like a copy, please write me directly. Pp. ~20
- de Haas, H. 2014. Migration theory: Quo vadis? International Migration Institute and Oxford University Working Paper 100, November 2014. Pp. 34. See: <https://heindehaas.files.wordpress.com/2015/05/de-haas-2014-imi-wp100-migration-theory-quo-vadis.pdf>
- Marino, E. and H. Lazrus. 2015. Migration or forced displacement? The complex choices of climate change and disaster migrants in Shishmaref, Alaska and Nanumea, Tuvalu.

Human Organization: Journal of the Society for Applied Anthropology, 74(4), 341-50, pp. 9.

- Cronon, W. 1992. A place for stories: Nature, history, and narrative. *The Journal of American History*, (March), 1347-1376. Pp. 29 [Also used in section on methods]
- Hunsburger et al [w/Jun Boris...]. 2017. "Climate change mitigation land grabbing and conflict towards a landscape-based and collaborative action research agenda." *Canadian Journal* Pp. 19

Recommended Readings:

- Steinbeck, J. 1939. *The Grapes of Wrath*. New York: Penguin Books. Chapters 1-5. Pp. 39.
- Demeritt, D. 1994. Ecology, objectivity and critique in writings on nature and human societies. *Journal of Historical Geography* 20 (1):22-37.
- Cronon, W. 1994. Comment: Cutting loose or running around? *Journal of Historical Geography* 20 (1):38-43.
- Harvey, D. 2003. *The new imperialism*. Oxford: Oxford University Press. Ch. 4: "Accumulation by Dispossession," pp. 137-183. Pp. 46. See: <http://eatonak.org/IPE501/downloads/files/New%Imperialism.pdf>

More readings on Migration

This lecture explores migration as a climate-related phenomenon. The first lecture in August dealt with analytic framings through the lens of climate change. There we saw that climate change was not the cause and migration was not the problem. Today we will go into a little more depth on these same issues.

- Fobotko Tuvalu – The World's First Climate Refugees – <https://youtu.be/b6QEDb15zrg>
- Milgroom, Jessica and Jesse Ribot. 2019. "Children of another land: social disarticulation, access to natural resources and the reconfiguration of authority in post resettlement," *Conservation and Society*. Available at: <http://dx.doi.org/10.1080/08941920.2019.1590668>.

Some addition recommended readings on Migration and Climate Change

- Naomi Klein 2015. [This Changes Everything: Capitalism vs. The Climate](#). Simon & Schuster. [YouTube video](#). (view before class, one hour lecture by n Klein on her book with that title).
- Étienne Piguet, Antoine Pécoud and Paul De Guchteneire (eds). 2011. *Migration and Climate Change*. Cambridge University Press, 2011.
 - Ch 5: [McAdam, Jane. "Refusing 'Refuge' in the Pacific:\(De\) Constructing Climate-Induced Displacement in International Law."](#) Pp 102-137.
 - Ch 10: Hugo, G. "Lessons from past forced resettlement for climate change migration." Cambridge University Press. Pp. 260-287.
 - Ch 12: Hunter, Lori M., and Emmanuel David. "Displacement, climate change and gender." Pp. 306-330.

- Nick Buxton and Ben Hayes (eds). 2016. *The Secure and the Dispossessed: How the Military and Corporations Are Shaping a Climate-Changed World*. Pluto Press.
 - Foreword by Susan George. Pp. xv- xviii
 - Ch 2: Hayes, B. "Colonising the future: Climate change and international security strategies." Pp. 39-62.
 - Ch 3: Reyes, O. "Climate Change Inc.: How TNCs are managing risk and preparing to profit in a world of runaway climate change." Pp. 63-84.
- Hammar, Amanda. (ed.) 2014 [Displacement economies in Africa: paradoxes of crisis and creativity](#). Nordiska Afrikainstitutet
 - Hammar, Amanda. "Introduction: Displacement economies in Africa: paradoxes of crisis and creativity." Pp. 3-34.
 - Hammar, Amanda "The paradoxes of class: crisis, displacement and repositioning in post-2000 Zimbabwe." Pp. 79-105.
- Jane McAdam (ed.) 2010. *Climate Change and Displacement: Multidisciplinary Perspectives*. Hart publishing.
- Ch 3: Barnett, Jonathon, and Michael Webber. "Migration as Adaptation: Opportunities and Limits, Pp. 37-56.
- Ch 7: Zetter, Roger. "Protecting people displaced by climate change: Some conceptual challenges." Pp. 131-150.
- Christian Parenti 2011. [Tropic of Chaos: Climate Change and the New Geography of Violence](#). Nation Books.
- Andy Rumbach 2016. [Disaster Governance in Small Urban Places: Issues, Trends, and Concerns- Disaster Governance in Urbanising Asia](#).
- Thomas Faist, Jeanette Schade, (eds.) *Disentangling Migration and Climate Change* [electronic resource]: methodologies, political discourses and human rights/. Ebook
- Climate-induced population displacements in a 4+C world. [Link](#).
- Discourses of [Displacement and Deservingness](#).
- Civil conflict [connected to climate](#).
- Why the numbers don't add up. [Link](#).
- Film. The island president [documentary](#).
- 2009. A Cultural History of Climate. [Amazon link](#).
- 2014. Windfall: the booming business of global warming. [Amazon link](#).

On the Anthropocene

Required Readings on the Anthropocene

Page Count: 25+6+16+17 = 64 pages

- Chakrabarty, D. 2008. The climate of history: Four theses. *Critical Inquiry* (Winter), 197-222. Pp. 25 <http://www.law.uvic.ca/demcon/2013%20readings/Chakrabarty%20-%20Climate%20of%20History.pdf>
- Dillon, M. 2007. Governing through contingency: The security of biopolitical governance. *Political Geography*, 26, 41-47. Pp. 6
- Fassin, D. 2009. Another politics of life is possible. *Theory, Culture, Society*, 26, 44-60. Pp. 16
- Hornborg, A. 2017. Dithering while the planet burns: Anthropologists' approaches to the Anthropocene. *Reviews in Anthropology*, 1-17. Pp. 17
- Yusoff, Kathryn. 2018. *A Billion Black Anthropocenes or None*. Minneapolis: University of Minnesota Press.
 - Introduction, pp. 1-11.

Global Scales and the Long Durée

Required Reading on Global Scales¹⁹

Page Count: 14+15+7+17 = 53 pages.

- Wescoat, J.L. Jr. 1991. Managing the Indus river basin in light of climate change: Four conceptual approaches. *Global Environmental Change*, 381-395. Pp. 14
- Ghosh, J. 2010. The unnatural coupling: Food and global finance. *Journal of Agrarian Change*, 10 (1), 72-86. Total = 15 pages.
- Hulme, M. 2010. Problems with making and governing global kinds of knowledge. *Global Environmental Change*, 20, 558-564. PP. 7
- Watts, M.J. 2015. Thinking the African food crisis: The Sahel forty years on. Oxford Handbooks Online (www.oxfordhandbooks.com). Oxford University Press. *The Oxford Handbook of Food, Politics and Society*, edited by Ronald Herring. Pp. 17

On Uncertainty

- Scoones, Ian. 2019. What is Uncertainty and Why Does it Matter?, STEPS Working Paper 105, Brighton: STEPS Centre. Pp. 33. https://opendocs.ids.ac.uk/opendocs/bitstream/handle/123456789/14470/STEPSWP_105_Scoones_final.pdf

University-Wide Policies You Should be Familiar With

Academic Integrity

Standards of academic conduct are set forth in the university's Academic Integrity Code. By registering for this course, students have acknowledged their awareness of the Academic Integrity Code and they are obliged to become familiar with their rights and responsibilities as defined by the Code. Violations of the Academic Integrity Code will not be treated lightly and disciplinary action will be taken should violations occur. This includes cheating, fabrication, and plagiarism.

Defining and Reporting Discrimination and Harassment (Title IX)

American University expressly prohibits any form of discrimination and discriminatory harassment including sexual harassment, dating and domestic violence, sexual assault, and stalking. The University is an equal opportunity, affirmative action institution that operates in compliance with applicable laws and regulations. AU does not discriminate on the basis of race, color, national origin, religion, sex (including pregnancy), age, sexual orientation, disability, marital status, personal appearance, gender identity and expression, family responsibilities, political affiliation, source of income, veteran status, an individual's genetic information, or any other bases under federal or local laws in its programs and activities.

As a faculty member, I am required to report discriminatory or harassing conduct to the university if I witness it or become aware of it – regardless of the location of the incident. There are four confidential resource on campus if you wish to speak to someone who is not required to report: Counseling Center, victim advocates in OASIS, medical providers in the Student Health Center, and ordained clergy in the Kay Spiritual Life Center. If you experience any of the above, you have the option of filing a report with [University Police](#) (202-885-2527), the [Office of the Dean of Students](#) (dos@american.edu or 202-885-3300), or the [Title IX Office](#) (202-885-3373 or TitleIX@american.edu). For more information, including a list of supportive resources on and off-campus, contact OASIS (oasis@american.edu or 202-885-7070) or check out the [Support Guide on the Title IX webpage](#).

Emergency Preparedness

In the event of an emergency, American University will implement a plan for meeting the needs of all members of the university community. Should the University be required to close for a period of time, we are committed to ensuring that all aspects of our educational programs will be delivered to our students. These may include altering and extending the duration of the traditional term schedule to complete essential instruction in the traditional format and/or the use of distance instructional methods. Specific strategies will vary from class to class, depending on the format of the course and the timing of the emergency. Faculty will communicate class-specific information to students via AU email and Blackboard, while students must inform their faculty immediately of any emergency-related absence. Students are responsible for checking their AU email regularly and keeping themselves informed of emergencies. In the event of an emergency, students should refer to the AU Student Portal, the [AU website](#), and the AU

information line at (202) 885-1100 for general university-wide information, as well as contact their faculty and/or respective dean's office for course and school/college specific information.

Incomplete Policy

At the discretion of the faculty member and before the end of the semester, the grade of I (Incomplete) may be given to a student who, because of extenuating circumstances, is unable to complete the course during the semester. The grade of Incomplete may be given only if the student is receiving a passing grade for the coursework completed. Students on academic probation may not receive an Incomplete. The instructor must provide in writing to the student the conditions, which are described below, for satisfying the Incomplete and must enter those same conditions when posting the grades for the course. The student is responsible for verifying that the conditions were entered correctly.

Conditions for satisfying the Incomplete must include what work needs to be completed, by when the work must be completed, and what the course grade will be if the student fails to complete that work. At the latest, any outstanding coursework must be completed before the end of the following semester, absent an agreement to the contrary. Instructors will submit the grade of I and the aforementioned conditions to the Office of the University Registrar when submitting all other final grades for the course. If the student does not meet the conditions, the Office of the University Registrar will assign the default grade automatically.

The Associate Dean of the Academic Unit, with the concurrence of the instructor, may grant an extension beyond the agreed deadline, but only in extraordinary circumstances. Incomplete courses may not be retroactively dropped. An Incomplete may not stand as a permanent grade and must be resolved before a degree can be awarded.

Student Code of Conduct

The central commitment of American University is the development of thoughtful, responsible human beings in the context of a challenging yet supportive academic community. The [Student Code of Conduct](#) is designed to benefit the American University community and to assist in forming the highest standards of ethics and morals among its members. By registering for this course, students have acknowledged their awareness of the Student Code of Conduct and they are obliged to become familiar with their rights and responsibilities as defined by the Code.

Religious Observances

Students will be provided the opportunity to make up any examination, study, or work requirements that may be missed due to a religious observance, provided they notify their instructors before the end of the second week of classes. Please send this notification through email to the professor. For additional information, see American University's [religious observances policy](#).

Use of Student Work

The professor will use academic work that you complete for educational purposes in this course during this semester. Your registration and continued enrollment constitute your consent.

Academic Support Services You Should be Familiar With

Academic Support

All students may take advantage of the [Academic Support and Access Center \(ASAC\)](#) for individual academic skills counseling, workshops, Tutoring and Writing Lab appointments, peer tutor referrals, and Supplemental Instruction. The ASAC is located in Mary Graydon Center 243. Additional academic support resources available at AU include the Bender Library, the Department of Literature's Writing Center (located in the Library), the Math Lab in the Department of Mathematics & Statistics, and the Center for Language Exploration, Acquisition, & Research (CLEAR) in Anderson Hal, Room B-10I. A more complete list of campus-wide resources is available in the ASAC.

International Student & Scholar Services

[International Student & Scholar Services](#) has resources to support academic success and participation in campus life including academic counseling, support for second language learners, response to questions about visas, immigration status and employment and intercultural programs, clubs and other campus resources. (202-885-3350, Butler Pavilion 410).

Writing Center

The [Writing Center](#) offers free, individual coaching sessions to all AU students. In your 45-minute session, a student writing consultant can help you address your assignments, understand the conventions of academic writing, and learn how to revise and edit your own work. (202-885-2991, Bender Library – 1st Floor Commons).

Student Support Services You Should be Familiar With

Center for Diversity & Inclusion (CDI)

[CDI](#) is dedicated to enhancing LGBTQ, multicultural, first-generation, and women's experiences on campus and to advancing AU's commitment to respecting and valuing diversity by serving as a resource and liaison to students, staff, and faculty on issues of equity through education, outreach, and advocacy. It is located on the 2nd floor of Mary Graydon Center (202-885-3651, MGC 201 & 202).

Counseling Center

The [Counseling Center](#) offers counseling and consultations regarding personal concerns, self-help information, and connections to off-campus mental health resources. (202-885-3500, MGC 214).

Dean of Students Office

The [Dean of Students Office](#) offers individual meetings to discuss issues that impact the student experience, including academic, social, and personal matters; making referrals to appropriate campus resources for resolution. Additionally, while academic regulations state that medical absences are to be excused, if faculty require documentation to verify the student's explanation, such documentation should be submitted to the Dean of Students. The office will then receive the documentation and verify the medical excuse. Faculty have the discretion to approve absences and do not need permission from the Dean of Students to excuse absences. Students should be sent to the Dean of Students only if faculty require further proof or if they have concerns about the impact of absences on the student's ability to succeed (202-885-3300, Butler Pavilion 408).

Food and Housing Insecurity Statement

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact the [Dean of Students \(dos@american.edu\)](#) for support. Furthermore, please notify the professor if you are comfortable in doing so. This will enable them to provide any resources that they may possess.

Office of Advocacy Services for Interpersonal and Sexual Violence

[OASIS](#) provides free and confidential advocacy services for students who have experienced sexual assault, dating or domestic violence, sexual harassment, and/or stalking. Please email or call to schedule an appointment with a victim advocate in OASIS. (osis@american.edu, 202-885-7070, Health Promotion and Advocacy Center – Hughes Hall 105). Students can also book an appointment with one of our two confidential victim advocates.

Respect for Diversity

As stated in the [American University Discrimination and Sexual Harassment Policy](#):

"American University is an equal opportunity, affirmative action institution that operates in compliance with applicable laws and regulations. The University does not discriminate on the basis of race, color, national origin, religion, sex, pregnancy or parenting, age, sexual orientation, disability, marital status, personal appearance, gender identity and expression, family responsibilities, political affiliation, source of income, veteran status, an individual's genetic information or any other bases under applicable federal and local laws and regulations (collectively "Protected Bases") in its programs and activities. The University expressly prohibits any form of discriminatory harassment including sexual harassment, dating and domestic violence, rape, sexual assault, sexual exploitation and stalking."

The above website includes further details, including how to report instances of discrimination and your responsibilities as a member of the campus community in relation to the policy; you are strongly encouraged to familiarize yourself further with this policy.

Class rosters and University data systems are provided to faculty with the student's legal name and legal gender marker. As a student, you are able to change how your preferred/proper name shows up through email, Blackboard, and on your AU ID Card. This option is helpful for various student populations, including but not limited to: students who abbreviate their first name; students who use their middle name; international students; and transgender students. As a faculty member, I am committed to using your proper name and pronouns. We will take time during our first class together to do introductions, at which point you can share with all members of our learning community what name and pronouns you use, as you are comfortable. Additionally, if these change at any point during the semester, please let me know and we can develop a plan to share this information with others in a way that is safe for you. Should you want to update your preferred/proper name, you can do so by looking at the [guidelines and frequently asked questions](#) from the Center for Diversity and Inclusion.

Students with Disabilities

If you wish to receive accommodations for a disability, please notify me with a letter from the Academic Support and Access Center. As accommodations are not retroactive, timely notification at the beginning of the semester, if possible, is strongly recommended. To register with a disability or for questions about disability accommodations, contact the Academic Support and Access Center at 202-885-3360 or asac@american.edu, or drop by MGC 243. For more information, visit AU's [Disability Accommodations web page](#).

Recommended Additional Readings

¹ Suggested Additional Readings on Vulnerability and its Definitions

- Thywissen, K., 2006: Core terminology of disaster risk reduction: A comparative glossary. In: *Measuring Vulnerability to Natural Hazards* [Birkmann, J. (ed.)]. UNU Press, Tokyo, Japan, pp. 448-496.
- Thywissen, K. 2006. *Components of Risk: A Contemporary Glossary*. United Nations University – Institute for Environment and Human Security (UNU-EHS). See only definitions of “vulnerability” in Glossary and Section 3.2, pp. 36-37 on vulnerability. Pp. 4. See <http://collections.unu.edu/eserv/UNU:1869/pdf4042.pdf>
- Manyena, Siambabala Bernard. 2006. “The concept of resilience revisited” *Disasters* Vol. 30, No. 4. Pp 433–450.
- Füssel, Hans-Martin. 2007. “Vulnerability: A Generally Applicable Conceptual Framework for Climate Change Research.” *Global Environmental Change*, Vol. 17, No. 2, pp. 155-167.
- Adger, W. Neil. 2006. “Vulnerability.” *Global Environmental Change*, Vol. 16, pp. 268-81.

- Kates, Robert W. and Sarah Millman. 1990. "On Ending Hunger, The Lessons of History," (Ch. 15) in Lucile F. Newman, ed. *Hunger in History: Food Shortage, Poverty and Deprivation*. Oxford: Blackwell, pp. 389-407. Pp. 18
- Flooding in Thailand: New York Times Article on 14 October 2011
<http://www.nytimes.com/2011/10/14/world/asia/a-natural-disaster-in-thailand-guided-by-human-hand.html?scp=19&sq=14%20October%202011&st=cse>. Total = 2 pages.
- Millman, Sarah and Robert W. Kates. 1990. "Toward Understanding Hunger," (Ch. 1) in Lucile F. Newman, ed. *Hunger in History: Food Shortage, Poverty and Deprivation*. Oxford: Blackwell, pp. 3-24.
- Füssel, Hans-Martin, and Richard J.T. Klein. 2006. "Climate Change Vulnerability Assessments: An Evolution of Conceptual Thinking." *Climate Change*, Vol. 75, pp.301-29.
- Eakin, Hallie, Emma L. Tompkins, Donald R. Nelson, John M. Anderies. 2009. "Hidden costs and disparate uncertainties: Trade-offs involved in Approaches to Climate Policy," pp. 212-226 in W. Neil Adger, Irene Lorenzoni and Karen O'Brien (eds.) *Adapting to climate change: thresholds, values, governance*. Cambridge: Cambridge University Press.
- Cardona, O.D., M.K. van Aalst, J. Birkmann, M. Fordham, G. McGregor, R. Perez, R.S. Pulwarty, E.L.F. Schipper, and B.T. Sinh, 2012: Determinants of risk: exposure and vulnerability. In: *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation* (Field, C.B., V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor, and P.M. Midgley, eds.). A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change (IPCC). Cambridge University Press, Cambridge, UK, and New York, NY, USA, pp. 65-108. Read sections 2.1, 2.2, 2.3, and 2.5.2 – pp. 69-76, and 80-86. Total = 15 pages. See: http://www.ipcc.ch/pdf/special-reports/srex/SREX-Chap2_FINAL.pdf
- Bankoff, G. (2001). Rendering the world unsafe: 'Vulnerability' as Western discourse. *Disasters*, 25(1), pp. 19-35. Total = 17 pages.
- IPCC (Inter-governmental Panel on Climate Change). (2014). Summary for policymakers. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 1-32. http://www.ipcc.ch/pdf/assessment-report/ar5/wg2/ar5_wgII_spm_en.pdf. Total = 32 pages. [Read this for how they define vulnerability and the implications of their definition and approach to it.]
- Shove, E. 2010. Social theory and climate change: Questions often, sometimes and not yet asked. *Theory, Culture & Society*, Vol. 27(2-3): 277-288. Pp. 11.
- O'Brien, K.L. and R.M. Leichenko. 2000. Double exposure: Assessing the impacts of climate change within the context of economic globalization. *Global Environmental Change*, 10, 221-232. Pp. 12

² Recommended readings on the concept of risk:

Risk is an important concept in vulnerability studies. This reading is all background to understanding this important concept. Typically in climate change circles it is used merely to mean probability times consequence – this is the engineering definition – but there is a much richer history of its use and meanings. It is worth being familiar with them.

- Krinsky, Sheldon. 1992. "The Role of Theory in Risk Studies," Ch. 1, pp. 3-22 in Sheldon Krinsky and Dominic Golding, eds. *Social Theories of Risk*. Westport: Praeger. Total = 20 pages.
- Renn, Ortwin. 1992. "Concepts of Risk: A Classification," Ch. 3, pp. 3-53-79 in Sheldon Krinsky and Dominic Golding, eds. *Social Theories of Risk*. Westport: Praeger. Total = 27 pages.

- Rose, Nicholas. 1996. "Death of the Social? Re-figuring the Territory of Government," *Economy and Society*. Vol. 25, No. 2, Pp. 327-54. Total = 28 pages.
- Covello, V. and J. Mumpower, 1985: Risk analysis and risk management: An historical perspective. *Risk Analysis*, 5(2), 103-120. Pp = 17
- Hewitt, Kenneth. 1997. *Regions of Risk: A Geographical Introduction to Disasters*. London: Longman. Ch. 1, pp. 21-39, "Risk and Damaging Events." Pp. 18
- Polanyi, Karl. 1944. *The Great Transformation*. Boston: Beacon Press.
- Douglas, M. 1992. *Risk and Blame: Essays in Cultural Theory*. London: Routledge. Chs. 1-3, pp. 3-55.
- Douglas, Mary. 1985. *Risk Acceptability According to the Social Sciences*. Social Research Perspectives Occasional Reports on Current Topics, Russel Sage Foundation. Read "Natural Risk." Ch. 5, pp. 53-64. Pp. 11.
- Douglas, Mary. 1985. *Risk Acceptability According to the Social Sciences*. New York: Russell Sage Foundation.
- Beck, Ulrich. 2006. Living in the world risk society. *Economy and Society* Vol. 35 No. 3, pp. 329-345.
- Beck, U. 2009. *World at Risk*. Cambridge, UK: Polity Press.
- Beck, U. 1994. The reinvention of politics: towards a theory of reflexive modernization. In: Beck, U. Giddens, A and Lasch, S. (Eds.), *Reflexive Modernization: Politics, Tradition and Aesthetics in the Modern Social Order*. Stanford, CA: Stanford University Press, pp. 1-55.
- Beck, U. 1992. *Risk Society: Towards a New Modernity*. New Delhi: Sage.
- Pelling, Mark. 2003. *The Vulnerability of Cities: Natural Disasters and Social Resilience*. London: Earthscan Publications. Ch. 1, pp. 3-18, "Tracing the Roots of Urban Risk and Vulnerability."
- Giddens, Anthony. 2009. *The Politics of Climate Change*. London: Polity Press. Ch. 1 Climate Change, Risk and Danger, pp. 17-34.
- Adam, Barbara, Ulrich Beck and Joost Van Loon. 2000. *The Risk Society and Beyond: Critical Issues for Social Theory*. London: Sage.
- Jasanoff, Sheila A. 1999. "The Songlines of Risk" *Environmental Values* Vol. 8: 135-152.
- Rose, Nicholas. 1999. *Powers of Freedom: Reframing Political Thought*. Cambridge: Cambridge University Press.
- Birkmann J, Krause D, Setiadi NJ, Suarez D, Welle T, Wolfertz J, Dickerhof R, Mucke P, Radtke K (2011) *WorldRiskReport 2011*. Alliance Development Works, Berlin. <http://www.ehs.unu.edu/file/get/9018>.
- Schipper, E.L.F (2010) 'Religion as an Integral Part of Determining and Reducing Climate Change and Disaster Risk: an Agenda for Research' in Voss, M. (ed.) *Climate Change: The Social Science Perspective*, pp.377-393, VS-Verlag: Wiesbaden, Germany. Pp. 16
- Dillon, Michael. 2007. Governing Through Contingency: The Security of Biopolitical Governance. *Political Geography*, 26, 41-47.
- Dillon, Michael. 2008. Underwriting Security. *Security Dialogue* 39/2-3 (April), 309-32.

³ Recommended readings on Famine

- Agarwal, Bina. 1990. "Social Security and the Family: Coping with Seasonality and Calamity in Rural India." *Journal of Peasant Studies*, pp. 341-412. Pp. 71.
- de Waal, Alex. 1989. *Famine that kills: Darfur, Sudan*. Oxford: Oxford University Press. Pp. 32
 - Introduction. Pp. 1-8
 - Ch 1: 'Famine' in English. Pp. 9-32.
- Nally, David. 2011. "Architectures of violence: Famine and profits: The widespread scarcity of food is mistakenly viewed as a crime without a culprit." *Al Jazeera*. <http://english.aljazeera.net/indepth/opinion/2011/08/201181492658224754.html> Aug. 27.

- Davis, Mike. 2001. *Late Victorian Holocausts: El Niño Famines and the Making of the Third World*. London: Verso Press.
- Jisheng, Yang. 2012. *Tombstone: The Great Chinese Famine 1959-1962*. New York: Farrar, Straus and Giroux. Read Ch 2: "The Epicenter of the Disaster," "Part I: The Xinyang Incident." Pp. 23-68. Total = 46 pages.
- Shackelton, Sheona E. and Charlie M. Shackelton. 2012. "Linking Poverty, HIV/AIDS and Climate Change to Human and Ecosystem Vulnerability in Southern Africa: Consequences for Livelihoods and Sustainable Ecosystem Management." *International Journal of Sustainable Development and World Ecology* Vol. 19, No. 3, Pp. 275-286. Total = 12 pages. [Good for undergrads.]
- Maxwell, Daniel and Merry Fitzpatrick. 2012. "The 2011 Somalia famine: Context, causes, and complications," *Global Food Security* Vol. 1, Pp. 36-42. Total = 7 pages.
- Majid, Nisar and Stephen McDowell. 2012. "Hidden dimensions of the Somalia famine" *Global Food Security* Vol. 1, Pp. 5-12. Total = 8 pages.
- Mertz, O., Mbow, C., Reenberg, A., Diouf, A. (2009) Farmers' perceptions of climate change & agricultural adaptation strategies in rural Sahel. *Environ Manage* 43, Pp. 804-816. Total = 13 pages.
- Newman, Lucile F. 1990. *Hunger in History: Food Shortage, Poverty and Deprivation*. Oxford: Blackwell.
- Watts, Michael. 1991. Entitlements or Empowerment? Famine and Starvation in Africa. *Review of African Political Economy*. Vol. 51, pp. 9-26. Pp. 18
- Herring, R. J. 2015. How is food political? Market, state, and knowledge. Ch. 1, pp. 3-40, in Ronald J. Herring (ed.) *The Oxford Handbook of Food, Politics, and Society*. Oxford: Oxford University Press. Pp. 37

⁴ Suggested Additional Readings on Entitlements and Vulnerability

- Sen, A. 1980. Famines. *World Development* 8(9), 613-621.
- Sen, Amartya. 1981. *Poverty and Famines: An Essay on Entitlement and Deprivation*. Oxford: Oxford University Press.
- Sen, Amartya. 1984. Rights and Capabilities. In Sen, Amartya (ed). *Resources, Values and Development*. Oxford: Basil Blackwell.
- Fine, B. (1997). Entitlement failure? *Development and Change*, 28(4), 617-647. Pp. 31
- Gasper, Des. 1993. "Entitlement Analysis: Concepts and Context." *Development and Change*, Vol. 24, pp. 679-718.
- Bohle, Hans-G. 2001. "Vulnerability and Criticality: Perspectives from Social Geography." IHDP Update 2/01, pp. 3-5. See: <http://ipcc-wg2.gov/SREX/report/njlite?chapter=&page=4>.
- Watts, Michael. 1991. Entitlements or Empowerment? Famine and Starvation in Africa. *Review of African Political Economy*. Vol. 51, pp. 9-26. Total = 18 pages.
- Rain, David R. 2009. "Vulnerability and the City: How activity patterns and the built environment affect urban residents' responses to disease and hazard threats; the case of Accra, Ghana." Washington, DC: The George Washington University Seminar in Urban Studies. Pp. 15.
- Deere, Carmine Diana and Alain deJanvry. 1984. "A Conceptual Framework for the Empirical Analysis of Peasants," pp. 601-611, Giannini Foundation Paper No. 543. Berkeley: Giannini Foundation. [This piece is a good framework for analyzing why peasant households are poor.]
- Devereux, S. (2001). Sen's entitlement approach: Critiques and counter-critiques, *Oxford Development Studies*, 29 (3), 245-263. Total = 19 pages.
- Somers, Margaret R. 2008. *Genealogies of Citizenship, Markets, Statelessness, and the Right to Have Rights*. Cambridge: Cambridge University Press. Introduction "Theorizing Citizen Rights and Statelessness," Pp. 1-60. Total = 60 pages.

A few more below that I have just scanned:

- Cooper, N. 1977, "Justice and historical entitlement", *Canadian Journal of Philosophy*, vol. 7, no. 4, pp. 799-803.
- Hodgson, L.P. 2010, "Kant on property rights and the state", *Kantian Review*, vol. 15, no. 1, pp. 57-87.
- Locke, J. 1678, "Chapter 10: Of Property" in *Two Treatises of Government*, pp. 77-86.
- Nozick, R. 1974, "Chapter 7: Distributive Justice" in *Anarchy, State and Utopia* Blackwell Publishers, Oxford, UK, pp. 149-231.
- Rawls, J. 1971, *A Theory of Justice*, Revised 1999 ed., The Belknap Press of Harvard University, Cambridge, Massachusetts.
- Osmani, S. R. (1991). Comments on Alex de Waal's 'Re-assessment of Entitlement Theory in the Light of Recent Famines in Africa'. *Development and Change*, 22(3), 587-596.
- Osmani, S. R. (1993). The entitlement approach to famine: An assessment (No. 107). UNU World Institute for Development Economics Research.
- Gasper, D. 2014. Future global ethics: Environmental change, embedded ethics, evolving human identity. *Journal of Global Ethics*, 10(2), 135-145. Pp. 10

⁵ Suggested readings on critique of early risk and hazards research

- Watts, Michael J. 1983. "On the Poverty of Theory: Natural Hazards Research in Context," (ch. 13) in Ken Hewitt, ed. *Interpretations of Calamity*. London: Allen Unwin, pp. 231-262. [Included as a critique of hazards literature—not entitlements.]
- Susman, P., O'Keefe, P., Wisner, B. (1983) Global disasters, a radical interpretation. In: Hewitt, K. (Ed.), *Interpretations of Calamity: From the Viewpoint of Human Ecology*. Boston, MA: Allen & Unwin, pp. 263-283.
- Hewitt, K. (1983) The idea of calamity in a technocratic age. In: Hewitt, K. (Ed.), *Interpretations of Calamity: From the Viewpoint of Human Ecology*. Boston, MA: Allen & Unwin, pp. 3-30.
- Hans G. Bohle, Thomas E. Downing, and Michael J. Watts, "Climate Change and Social Vulnerability: Toward a Sociology and Geography of Food Insecurity." *Global Environmental Change* 4, no. 1 (1994): 37-48.

⁶ Recommended readings on capabilities

- Forsyth, T. 2015. Ecological functions and functionings: Towards a Senian analysis of ecosystem services. *Development and Change*, 46(2): 225-246. Pp. 21

⁷ Recommended readings on structure and agency debates:

- Giddens, A. (1984). Elements of the theory of structuration. Chapter 1 in *The constitution of society: Outline of the theory of structuration*. University of California Press. Pp. 1-37. Total = 37 pages.
- Ojha, H.R. (2008). *Reframing governance: Understanding deliberative politics in Nepal's Terai forestry*. New Delhi: Adroit Publishers. Ch. 1 "Understanding Governance through the Languages of Bourdieu and Habermas," pp. 33-66. Total = 34 pages.
- Pred, A. (1984). Place as historically contingent process: Structuration and the time-geography of becoming places" *Annals of the Association of American Geographers*, 74 (2) (Jun., 1984), pp. 279-297. Pp. 18
- Sewell, W.H.J.(1992). Theory of structure: Duality, agency and transformation. *American Journal of Sociology*, 98,(1), 1-29.
- Galtung, Johan. 1969. "Violence, Peace, and Peace Research," *Journal of Peace Research* V. 6, Pp. 167-91.
- Rogers, Dennis and Bruce O'Neill. 2015. Infrastructural violence: Introduction to the special issue. *Ethnography* 3(4) 401–412.

- Carr, E.R. (2008). Between structure and agency: Livelihoods and adaptation in Ghana’s Central Region. *Global Environmental Change*, 18, 689-699. Total = 11 pages.
- McLaughlin, P., and T. Dietz. (2007). Structure, agency and environment: Toward an integrated perspective on vulnerability. *Global Environmental Change*, 39(4), 99-111. Total = 13 pages.
- Goldman, Mara, Meaghan Daly and Eric Lovell. (2015). “Exploring Multiple Ontologies of Drought in Agro-pastoral regions of northern Tanzania: A topological approach. *AREA*. Forthcoming. Pages =7

⁸ IPCC Glossary. Date of Draft: 4/06/18

Adaptation The process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects.

Risk The potential for adverse consequences where something of value is at stake and where the occurrence and degree of an outcome is uncertain. In the context of the assessment of climate impacts, the term risk is often used to refer to the potential for adverse consequences of a climate-related hazard, or of adaptation or mitigation responses to such a hazard, on lives, livelihoods, health and wellbeing, ecosystems and species, economic, social and cultural assets, services (including ecosystem services), and infrastructure. Risk results from the interaction of vulnerability (of the affected system), its exposure over time (to the hazard), as well as the (climate-related) hazard and the likelihood of its occurrence.

Vulnerability The propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts and elements including sensitivity or susceptibility to harm and lack of capacity to cope and adapt.

Hazard The potential occurrence of a natural or human-induced physical event or trend that may cause loss of life, injury, or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, ecosystems and environmental resources.

Impacts (consequences, outcomes) The consequences of realized risks on natural and human systems, where risks result from the interactions of climate-related hazards (including extreme weather and climate events), exposure, and vulnerability. Impacts generally refer to effects on lives, livelihoods, health and wellbeing, ecosystems and species, economic, social and cultural assets, services (including ecosystem services), and infrastructure. Impacts may be referred to as consequences or outcomes, and can be adverse or beneficial.

Resilience The capacity of social, economic and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganising in ways that maintain their essential function, identity and structure, while also maintaining the capacity for adaptation, learning and transformation. [Footnote: This definition builds from the definition used by Arctic Council (2013).]

Exposure The presence of people; livelihoods; species or ecosystems; environmental functions, services, and resources; infrastructure; or economic, social, or cultural assets in places and settings that could be adversely affected.

⁹ Recommended Additional Readings on Vulnerability and Environment

- Wisner, B., P.M. Blaikie and T. Cannon. (2004). *At risk: Natural hazards, people's vulnerability and disasters*. 2nd Edition. London: Routledge. Pp. 34
 - Ch.2: Disaster Pressure and Release Model. Pp. 49-86.

- Ribot, Jesse C. 1995. "The Causal Structure of Vulnerability: Its Application to Climate Impact Analysis." *GeoJournal*, Vol. 35, No. 2, pp. 119-122.
- Kabeer, Naila. 1991. "Gender Dimensions of Rural Poverty: Analysis from Bangladesh" *Journal of Peasant Studies* 18, pp. 241-62.
- Jackson, C. 2003. "Gender analysis of land: Beyond land rights for women?" *Journal of Agrarian Change* Vol. 3, pp. 453-480. [cf Agrawal 1983.]
- Agarwal, Bina. 1983. "Gender and land rights revisited: exploring new prospects via the state, family and market," *Journal of Agrarian Change* Vol. 3, pp. 184-224.
- Wisner, Ben. 1976. "Man-Made Famine in Eastern Kenya: The interrelationship of Environment and Development," Discussion Paper No. 96, Institute of Development Studies at the University of Sussex, Brighton, England.
- Burton, Ian, Robert W. Kates, and Gilbert F White. 1978. *The Environment as Hazard*. New York: Oxford University Press.
- Cannon, Terry. 2000. "Vulnerability Analysis and Disasters," (ch.2) in D.J. Parker, ed. *Floods*. London: Routledge, pp. 45-55.
- Downing, Thomas. 1991. "Assessing Socioeconomic Vulnerability to Famine: Frameworks, Concepts, and Applications." Final Report to the U.S. Agency for International Development, Famine Early Warning System Project, January 30, 1991.
- Kasperson, R.E., K. Dow, E. Archer, D. Caceres, T. Downing, T. Elmqvist, S Eriksen, C. Folke, G. Han, K. Iyengar, C. Vogel, K. Wilson, G. Ziervogel. 2005. "Vulnerable Peoples and Places", pp. 143-164 in R. Hassan, R. Scholes, and N. Ash, eds. *Ecosystems and Human Wellbeing: Current State and Trends*. Vol. 1, Washington, D.C.: Island Press.
- Smucker, Thomas A. and Ben Wisner. 2008. "Changing Household Responses to Drought in Tharaka, Kenya: Vulnerability Persistence and Challenge." Journal Compilation, Overseas Development Institute. Oxford: Blackwell.
- Watts, Michael J. 1987. "Drought, Environment and Food Security: Some Reflections on Peasants, Pastoralists and Commoditization in Dryland West Africa." In Michael H. Glantz, ed. *Drought and Hunger in Africa*. Cambridge: Cambridge University Press.
- Ranganathan, Malini. 2015. Storm Drains as Assemblages: The Political Ecology of Flood Risk in Post-Colonial Bangalore. *Antipode* Vol. 00 No. 0 2015 ISSN 0066-4812, pp 1–21.
- Tschakert, P. 2007. "Views from the Vulnerable: Understanding climatic and other Stressors in the Sahel," *Global Environmental Change*. No. 7, pp. 381-396. Pp. 15
- Eric Klinenberg. 2002. *Heat Wave: A Social Autopsy of Disaster in Chicago*. Chicago: University of Chicago Press.

¹⁰ Suggested readings on Vulnerability and Livelihoods

- Turner II, B.L., P.A. Matson, J.J. McCarthy, R.W. Corell, L. Christensen, N. Eckley, G.K. Hovelsrud-Broda, J.X. Kasperson, A. Luers, M.L. Martello, S. Mathiesen, R. Naylor, C. Polskyje, A. Pulsipher, A. Schiller, H. Selin, and N. Tyler. 2003. A framework for vulnerability analysis in sustainability science. *Proceedings of the National Academy of Sciences US*, Vol. 100, pp. 8074-8079. [Pressure-Release Model.] Pp. 5
- Turner II, B.L., P.A. Matson, J.J. McCarthy, R.W. Corell, L. Christensen, N. Eckley, G.K. Hovelsrud-Broda, J.X. Kasperson, A. Luers, M.L. Martello, S. Mathiesen, R. Naylor, C. Polsky, A. Pulsipher, A. Schiller, H. Selin, and N. Tyler. 2003. Illustrating the coupled human-environment system for vulnerability analysis: Three case studies. *Proceedings of the National Academy of Sciences US*, Vol. 100, pp. 8080-8085. Total = 6 pages.

- Scoones, Ian. 2009. "Livelihoods Perspectives and Rural Development," *Journal of Peasant Studies*. Vol. 36, No. 1. Pp. 171-196.
- Ellis, Frank. 2000. *Rural Livelihoods and Diversity in Developing Countries*. Oxford: Oxford University Press.
- Blaikie, Piers, T. Cannon, I. Davis, Ben Wisner. 1994. *At Risk: Natural Hazards, People's Vulnerability and Disasters*. London: Routledge. Also see their updated version: Wisner, Benjamin, Piers M. Blaikie, and Terry Cannon. *At Risk: Natural Hazards, People's Vulnerability and Disasters*. Edition: 2. Published by Routledge, 2004.
- Pelling, Mark. 2003. *The Vulnerability of Cities: Natural Disasters and Social Resilience*. London: Earthscan.
- Prowse, Martin. 2003. "Toward a Clearer Understanding of 'Vulnerability' in Relation to Chronic Poverty." CPRC Working Paper No. 24, Chronic Poverty Research Centre, University of Manchester, Manchester, UK, pp. 1-41.
- Cannon, Terry. John Twigg, Jennifer Rowell. N.d. (2003?) *Social Vulnerability, Sustainable Livelihoods and Disasters*. Report to DFID, Conflict and Humanitarian Assistance Department and Sustainable Livelihoods Support Office, pp. 1-63.
- Osbahr, H., Twyman, C., Neil Adger, W., Thomas, D.S.G. (2008) Effective livelihood adaptation to climate change disturbance: Scale dimensions of practice in Mozambique. *Geoforum* 39, 1951-1964. Total = 14 pages.
- Prowse, M., Scott, L. 2008. Assets and Adaptation: An Emerging Debate. *IDS Bulletin-Institute of Development Studies* 39, 42-52. [Must read Moser 2007 beforehand]
- McElwee, Pamela. 2007. "From the Moral Economy to the World Economy: Revisiting Vietnamese Peasants in a Globalizing Era" *Journal of Vietnamese Studies*, Vol. 2, Issue 2, Pp. 57–107.
- Tschakert, P., B. van Oort, A.L. St. Clair & A. LaMadrid. 2013. Inequality and transformation analyses: a complementary lens for addressing vulnerability to climate change. *Climate and Development*, 5(4), 340-350. Pp. 10 [This article evaluates vulnerability analysis and its relation to intervention.]
- Hahn, Micah B., Anne M. Riedere and Stanley O. Foster. 2009. "The Livelihood Vulnerability Index: A pragmatic approach to assessing risk from climate variability and change – A case study in Mozambique. *Global Environmental Change* 19, 74-88. [In this article the 'capitals' frame is used to develop vulnerability indicators.]

¹¹ Recommended Readings on Methods

- Ribot, J. and N. L. Peluso. 2003. A theory of access: Putting property and tenure in place. *Rural Sociology*. Vol. 68, pp. 153-181. Pp. 28
- Hickey, S. and A. du Toit. (2007). *Adverse incorporation, social exclusion and chronic poverty*. CPRC Working Paper No. 81. Manchester: University of Manchester. Pp. 31
- O'Lear, S. 2016. Climate science and slow violence: A view from political geography and STS on mobilizing technoscientific ontologies of climate change. *Political Geography*, 52, 4-13. Pp. 9
- Bebbington, A. 2017. Just Environments in the Midst of Earth Transformations. *Social Science Research Council*. <https://items.ssrc.org/just-environments-in-the-midst-of-earth-transformations/>, Pp. 3 [makes obvious the excellent point (not obvious to technocrats) that social organization, human agency and activism are endogenous to environmental transformation]
- Bates, R. Analytic Narratives Intro

¹² Flat ontological approaches that can be contrasted with methodological approaches – the actor-networks should be contrasted with access theory or any chain of causality argument:

- Vandenberghe, F. 2002. Reconstructing humans: A humanist critique of actant-network theory. *Theory, Culture, Society* Vol. 19(5/6): 51–67. Pp. 16

- Kirsch, S. and D. Mitchell. 2004. The nature of things: Dead labor, nonhuman actors, and the persistence of Marxism. *Antipode*, 36(4), 687-705. Pp. 18
- Hornborg, A. 2016. Artifacts have consequences, not agency: Toward a critical theory of global environmental history. *European Journal of Social Theory*, 20 (1), 95-110. Pp. 15.

¹³ Recommended Readings on Adaptation:

- Yohe, G. and R.S.J. Tol. 2002. Indicators for social and economic coping capacity: Moving toward a working definition of adaptive capacity. *Global Environmental Change*, Vol.12, 25-40. Pp. 16 [A classic.]
- Pelling, M., K. O'Brien and D. Matyas. (2014). Adaptation and transformation. *Climatic Change*, 128(1-2). Total = 15 pages.
- Taylor, M. (2014). *The political ecology of climate change adaptation*. London: Earthscan. Total = 72 pages.
 - Ch. 2-4. Pp. 26-97.
- Taylor, M. (2014). *The political ecology of climate change adaptation*. London: Earthscan. Total = 25 pages.
- Ostrom, E. 2014. A polycentric approach for coping with climate change. *Annals of Economics and Finance*, 15(1), 97-124 (annexes-134). Pp. 27
- Nightingale, A. (2009). Warming up the climate change debate: A challenge to policy based on adaptation. *Journal of Forest and Livelihood*, 8(1), 85-90. PP. 6
- Demetriades, Justina and Emily Esplen. 2008. "The Gender Dimensions of Poverty and Climate Change Adaptation." *IDS Bulletin*, Vol. 39, No.4, September, pp. 24-31.
- Tanner, Thomas and Tom Mitchell. 2008. "Entrenchment of Enhancement: Could Climate Change Adaptation Help to Reduce Chronic Poverty?" *IDS Bulletin* Vol. 39. No. 4, September, pp. 6-15.
- Mortimore, Michael and W.M. Adams. 2000. "Farmer Adaptation, Change and "Crisis" in the Sahel." *Global Environmental Change*, Vol. 11, pp. 49-57.
- Brooks, Nick. 2003. "Vulnerability, Risk and Adaptation: A Conceptual Framework." Working Paper 38, Tyndall Centre for Climate Change Research, Norwich UK, pp. 1-20. [Have patience with this article. It is not just another definitional quagmire. Once you get through the first part it gets interesting. But, you must read this article with great care to follow the arguments.]
- Sabates-Wheeler, Rachel, Tom Mitchell and Frank Ellis. 2008. "Avoiding Repetition: Time for CBA to Engage with the Livelihoods Literature?" *IDS Bulletin*, Vol. 39, No. 4, pp. 53-59.
- IPCC (Intergovernmental Panel on Climate Change). 2007. "Assessment of Adaptation Practices, Options, Constraints and Capacity" (ch. 17) in M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden, and C.E. Hanson, Eds. *Impacts, Adaptation and Vulnerability*. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge: Cambridge University Press, pp. 717-743.
- Smit, B., I. Burton, R.J.T. Klein, and R. Street. 1999. "The Science of Adaptation: A Framework for Assessment," *Mitigation and Adaptation Strategies for Global Change* 4: 199–213.
- Carter, T. R., M.L. Parry, H. Harasawa, S. Nishioka. 1994. *IPCC Technical Guidelines for Assessing Climate Change Impacts and Adaptation*, University College, London, and Centre for Global Environmental Research, Tsukuba, Japan, pp. 1-59.
- Davies, Susanna and Naomi Hossain. "Livelihood Adaptation, Public Action and Civil Society: A Review of the Literature." *IDS Working Paper*, No. 57. Brighton: IDS Sussex.
- Reid, P., Vogel, C. (2006) Living and responding to multiple stressors in South Africa—Glimpses from KwaZulu-Natal. *Global Environmental Change* 16, 195-206. [Policy response, Risk, Agrawal type framework, Adaptation complexity.]

- Orlove, Ben, Heather Lazrus, Grete K. Hovelsrud, Alessandra Giannini. 2013/14. "Recognitions and Responsibilities: On the Origins and Consequences of the Uneven Attention to Climate Change around the World" *Africa Today* forthcoming. Pp. 32 [Probably 18 pages when published].
- Berkhout F (2002) Technological regimes, path dependency and the environment. *Global Environmental Change* 12(1): 1–4.
- Sharma M (2007) Personal to planetary transformation. *Kosmos Journal*. Fall-Winter, Pp. 31-35. Available at: <http://www.kosmosjournal.org/articles/personal-to-planetary-transformation>.
- Moser S. Caroline and Ekstrom J (2010) A framework to diagnose barriers to climate change adaptation. *PNAS* 107: 22026–22031.
- Olsson P, Gunderson LH, Carpenter SR, Ryan P, Lebel L, Folke C, et al. (2006) Shooting the rapids: Navigating transitions to adaptive governance of social-ecological systems. *Ecology and Society* 11(1): Article 18. URL: <http://www.ecologyandsociety.org/vol11/iss1/art18/>.
- Taylor, M. (2014). *The political ecology of climate change adaptation: Livelihoods, agrarian change and the conflicts of development*. London: Earthscan. Total = 23 pages.
 - Ch. 6: Pakistan – historicizing ‘adaptation’ in the Indus watershed. Pp. 122-42. Ch. 7: India— Water, Debt and Distress in the Deccan Plateau. Pp. 143-65.
- Ayers, J.M. and A.C. Abeysinghe. 2013. International aid and adaptation to climate change. Ch. 28, pp. 486-506 in *The Handbook of Global Climate and Environment Policy*, London: Wiley-Blackwell. Pp. 20.
- Tittonell, P. 2013. Livelihood strategies, resilience and transformability in African agroecosystems. *Agricultural Systems*, 126, 3-14. Pp. 12
- Smucker, T.A., B. Wisner, A. Mascarenhas, P. Munishi, E.E. Wangui, G. Sinha, D. Weiner, C. Bwenge and E. Lovell. 2015. Differentiated livelihoods, local institutions, and the adaptation imperative: Assessing climate change adaptation policy in Tanzania. *Geoforum*, 59, 39-50. Pp. 11
- Smit, B, I. Burton, R.J.T Klein and R. Street. 1999. The science of adaptation: A framework for assessment. *Mitigation and Adaptation Strategies for Global Change*, Vol. 4, pp. 199-213. Pp. 14
- Gaillard, J-C. (2010). Vulnerability, capacity and resilience: Perspectives for climate and development policy. *Journal of International Development*, 22, 218-232. Pp. 15
- Agrawal, A., M. Kononen, N. Perrin. 2009. "Role of Institutions in Adaptation to Climate Change," Social Development Paper No. 118. Washington DC: The World Bank. <http://siteresources.worldbank.org/EXTSOCIALDEVELOPMENT/Resources/244362-1164107274725/sdp118.pdf>

¹⁴ Recommended Readings on Transformative Adaptation:

- Gunderson, L. H. & Holling, C. S. 200). *Panarchy: Understanding Transformations in Human and Natural Systems*. Washington, DC: Island Press.
- Chapin FS III, Kofinas GP, and Folke C (eds). 2009 *Principles of Ecosystem Stewardship: Resilience-Based Natural Resource Management in a Changing World*. Berlin: Springer.
- Teschl M, Comim, F. 2005 Adaptive preferences and capabilities: some preliminary conceptual explorations. *Rev Soc Econ* 63(2):229–247. Pp. 18 [This piece is a critique of Sen and Nussbaum’s critique of utilitarianism. It argues that resigned populations can adapt within their limited desires – hence happiness must be accounted for within the evaluation of a capabilities approach.]

¹⁵ Suggested Additional Readings on Resilience:

- **Holling, C.S. – originator of the idea. Find some of his work.**
- Folke, C. 2006. Resilience: The emergence of a perspective for social-ecological systems analyses. *Global Environmental Change*, 16, 253-267. Pp. 15

- Walker, J. and M. Cooper 2011. Genealogies of resilience: From systems ecology to the political economy of crisis adaptation. *Security Dialogue*, 14 (2), 143-160. Pp. 18
- Walker, B. H., J. M. Anderies, A. P. Kinzig, and P. Ryan. 2006. Exploring resilience in social-ecological systems through comparative studies and theory development: introduction to the special issue. *Ecology and Society* 11(1):12. URL: <http://www.ecologyandsociety.org/vol11/iss1/art12/>. Pp. 5
- Nelson, D.R., W.N. Adger, and K. Brown. 2007. Adaptation to Environmental Change: Contributions of a Resilience Framework. *Annual Review Environmental Resources* 2007. 32:395–419. Pp. 24
- Lebel, L., J.M. Anderies, B. Campbell, C. Folke, S. Hatfield-Dodds, T.P. Hughes, et al. 2006. Governance and the capacity to manage resilience in regional social-ecological systems. *Ecology and Society*, 11(1). Pp. 21
- Cote, M. and A. Nightingale. 2012. Resilience thinking meets social theory. *Progress in Human Geography*, 6 (4), 475–489. Pp. 15
- WRI. 2008. *Roots of resilience*. Washington DC: World Resources Institute/UNEP/World Bank. http://www.wri.org/sites/default/files/pdf/world_resources_2008_roots_of_resilience.pdf Introduction and 'Our Thesis' Pp. 1-7. Pp. 7
- Fraser, E.D.G. 2003. Social vulnerability and ecological fragility: Building bridges between social and natural sciences using the Irish Potato Famine as a case study. *Conservation Ecology*, 7 (2), Article 9. See: <http://www.ecologyandsociety.org/vol7/iss2/art9/> About 15 pages. [This piece introduces 'resilience' through 'panarchy'. It is a very good and easy to read piece.]
- Watts, Michael J. 2015 draft. Now and Then: The origins of political ecology and the rebirth of adaptation as a form of thought. Ch. 2, pp. 19-50, in *Routledge Handbook of Political Ecology*. London: Routledge Press. Pp. 31
- Miller, F., H. Osbahr, E. Boyd, F. Thomalla, S. Bharwani, G. Ziervogel, B. Walker, J. Birkmann, S. Van der Leeuw, J. Rockström, J. Hinkel, T. Downing, C. Folke, and D. Nelson 2010. Resilience and vulnerability: complementary or conflicting concepts? *Ecology and Society* 15(3): 11. Total ~ 24 pages. URL: <http://www.ecologyandsociety.org/vol15/iss3/art11/>
- Walker, Brian and David Salt. 2006. *Resilience Thinking*. Washington: Island Press. Chapter introducing the Lazy 8 diagram: "Crossing the Threshold: Be Careful About the Path you Choose – You May not be Able to Return." Pp. 54-110.
- Folke C, Carpenter SR, Walker BH, Scheffer M, Chapin FS III, and Rockström J (2010) Resilience thinking: Integrating resilience, adaptability and transformability. *Ecology and Society* 15(4): Article 20. URL: <http://www.ecologyandsociety.org/vol15/iss4/art20/>. [Read this article with the following questions in mind: What is their theory of social organization and of social change? What do they define as capacity and what do they see as its causes and limits? What is systems theory and can it apply to human society? Where is explanation or risk or vulnerability? What questions are they asking?]
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- Leach, Melissa (ed.) 2008. Re-framing Resilience: a Symposium Report, STEPS Center, Institute for Development Studies, Sussex. Pp. 18. [<http://steps-centre.org/publication/re-framing-resilience-trans-disciplinarity-reflexivity-and-progressive-sustainability—a-symposium-report/>] [This is a discussion that requires background on resilience—it provides critiques and analysis of the concept.]
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¹⁶ Suggested readings related to Social Contracts

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- Casas-Cortés, M. 2014. A Genealogy of Precarity: A toolbox for rearticulating social realities in and out of the workplace. *Rethinking Marxism: A Journal of Economics, Culture & Society* 26:2, pp. 206-226, Pp. 20

¹⁷ Related readings on responsibility (and some on irresponsibility)

- Latour, B. (2014). Agency at the time of the Anthropocene. *New Literary History*, 45, 1-18. Pp. 18 [To critique for absence of any concept of responsibility.]
- Loftus, A. 2012. *Everyday environmentalism: Creating an urban political ecology*. Minneapolis: University of Minnesota Press. Ch. 1: "The Urbanization of Nature: Neil Smith and Posthumanist Controversies," Pp. 1-19. Pp. 19 [Read as humanism's relation to responsibility].
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¹⁸ Suggested additional readings on Migration

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- Warner, Koko. 2007. *Perspectives on Social Vulnerability: An introduction*. In SOURCE No. 6/2007. Bonn: United Nations University Institute for Environment and Human Security (UNU-EHS).

¹⁹ Recommended Readings on the Global Aspects of Climate Change

- Hulme, M. (2011) Reducing the future to climate: A story of climate determinism and reductionism. *Osiris* 26, 245-266.