

SIS 620-003 Syllabus

Official Name of Course  
**Global Climate Change**

Actual Name of Course  
**Climate and Social Vulnerability**

Spring 2022  
Tuesday 5:30 – 8:00 PM  
Location: TBA

**Professor:** Jesse Ribot  
**RA:** Ali Kaba

**Email:** [Ribot@American.edu](mailto:Ribot@American.edu)

**Office:** Zoom

**Office Hours:** By Appointment

**Preferred Communication Method:** e-mail

**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. Thus, analytic frameworks for evaluating the cause of climate-related vulnerability are contested. But cause also indicates potential solutions. As we 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 project for this seminar-style course will be the writing of a short research proposal.

The course provides students with a critical theoretical base and policy-analytic skills applicable to increasing security and wellbeing of the poor. In this course, you should learn to 1) evaluate the causes of climate-related vulnerabilities, 2) critically read and understand climate-related literature, 3) identify and ask policy-relevant social science research questions about climate-related vulnerability, and 4) to improve your writing.

# Table of Contents

<b>COURSE ASSIGNMENTS</b> .....	<b>v</b>
<i>Course Assignment Summary (detailed descriptions in Annex A)</i> .....	v
<i>Obtaining Weekly Assigned Readings</i> .....	v
<i>Grading</i> .....	v
<b>CLASS ASSIGNMENTS AND SCHEDULE</b> .....	<b>1</b>
<b>Week 1 (Jan 11): Introduction – Reading Vulnerability I</b> .....	<b>1</b>
<b>Week 2 (Jan 18): Reading Vulnerability II – on definitions and the locus of cause</b> .....	<b>2</b>
<i>Discussion: What is a Policy Research Proposal – what is a ‘problem’?</i> .....	3
<b>Week 3 (Jan 25): Reading Vulnerability II – on definitions and the locus of cause</b> .....	<b>3</b>
<i>PROJECTS: For next week, please bring in a research question/policy problem to discuss with class</i> .....	4
<i>Discussion of your Research Proposal ideas in class today</i> .....	4
<b>Week 4 (Feb 1): Central Concepts I: Entitlements</b> .....	<b>4</b>
<i>Discussion of your Research Proposal ideas in class today</i> .....	5
<i>PROJECTS: Your Project Abstracts are Due by Class Today</i> .....	5
<i>Schedule Research Presentations for week 6 to 14</i> .....	5
Presentation Schedule Table .....	5
<b>Week 5 (Feb 8): Central Concept II: Property, Belonging and Authority</b> .....	<b>5</b>
<b>Week 6 (Feb 15): Central Concepts II: Capabilities</b> .....	<b>7</b>
<i>Scheduled Research Proposal Presentations in Class – see Annex A for Presentation Instructions</i> .....	7
<b>Week 7 (Feb 22): Central Concepts III: Vulnerable Livelihoods – Bringing in the Environment</b> .....	<b>8</b>
<i>Scheduled Research Proposal Presentations in Class</i> .....	8
<b>Week 8 (Mar 1): Central Concept IV: Structure and Structural Violence</b> .....	<b>8</b>
<i>Scheduled Research Proposal Presentations in Class</i> .....	9
<b>No Class on March 8<sup>th</sup> – Spring Break!</b> .....	<b>9</b>
<b>Week 9 (Mar 15): Covid19 – A Revelatory Crisis</b> .....	<b>9</b>
<i>Scheduled Research Proposal Presentations in Class</i> .....	10
<b>Week 10 (Mar 22): Progressive Contextualization as Research Method</b> .....	<b>11</b>
<i>Scheduled Research Proposal Presentations in Class</i> .....	11
<b>Week 11 (Mar 29): Adaptation &amp; Resilience – Solutions?</b> .....	<b>11</b>
<i>Scheduled Research Proposal Presentations in Class</i> .....	12
<b>Week 12 (Apr 5): On Responsibility and Response: Cause and Blame in the Anthropocene?</b> .....	<b>12</b>
<i>Scheduled Research Proposal Presentations in Class</i> .....	13
<b>Week 13 (Apr 12): Climate Response – Racism, Justice and Human Rights</b> .....	<b>13</b>
<i>Scheduled Research Proposal Presentations in Class</i> .....	14
<b>Week 14 (Apr 19): Wrapping Up</b> .....	<b>14</b>
<i>Synthesis Discussion</i> .....	14
<i>Scheduled Research Proposal Presentations in Class</i> .....	14
<i>PROJECTS: Final project is due by 11pm on the Monday after this last class via e-mail &amp; on Canvas</i> .....	14
<i>The End of Course!</i> .....	15
<b>Annex A: Course Assignments</b> .....	<b>16</b>

<i>Class Assignment Format and Submission Procedures</i> .....	16
<i>Written Comments on Weekly Readings</i> .....	16
<i>Term Paper Writing Project</i> .....	17
Note on In-text Reference Style .....	17
Note on Bibliography Style .....	17
Term-Paper/Research-Proposal Abstract .....	17
<i>In-Class Presentation of your Term-Paper Project</i> .....	18
<i>A Policy Research Proposal Term Paper</i> .....	19
For some literature on proposal writing, see: .....	22
Some additional methods books/articles that may be of help .....	23
<i>Class Presentations – How to Structure</i> .....	23
<b>Annex B: Some Key Areas <i>not</i> Covered in Class this Semester</b> .....	<b>24</b>
<i>Social Contracts and The Precariat</i> .....	24
<i>Food Security &amp; Food Sovereignty</i> .....	24
<i>Justice and Governing</i> .....	25
<i>Climate Response: Adaptation Policy</i> .....	25
<i>Vulnerability in the Urban Environment: A Focus on Katrina</i> .....	26
<i>Global Policy on Climate and Adaptation</i> .....	27
<i>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.</i> .....	27
<i>Vulnerability Measures and Indicators</i> .....	28
<i>Migration and Risk</i> .....	28
<i>Mitigation/Adaptation—through REDD+</i> .....	30
<i>On the Anthropocene</i> .....	30
<i>Global Scales and the Long Durée</i> .....	31
<i>On Catastrophism</i> .....	31
<i>On Uncertainty</i> .....	31
<i>Democracy and Vulnerability</i> .....	32
<i>On Uncertainty</i> .....	32
<i>Films Worth Checking Out</i> .....	33
<b>Annex C: Defining Vulnerability &amp; Related Terms – a living document</b> .....	<b>33</b>
<b>University-Wide Policies You Should be Familiar With</b> .....	<b>45</b>
<b>Academic Support Services You Should be Familiar With</b> .....	<b>47</b>
<b>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.</b> .....	<b>47</b>
<b>Student Support Services You Should be Familiar With</b> .....	<b>47</b>
<b>Recommended Additional Readings</b> .....	<b>49</b>

## COURSE ASSIGNMENTS

### [Course Assignment Summary \(detailed descriptions in Annex A\)](#)

- **Read Annex A** and come to the 1<sup>st</sup> class with questions about the assignments.
- **Weekly readings** – you must read the assigned readings.
- **Weekly written 75-word maximum comments on readings** – to be submitted to me by e-mail ([Ribot@American.edu](mailto:Ribot@American.edu)) and on Canvas. Include at least one discussion question and at least one quote from the readings that surprised or struck you. Due at noon one day prior to the day of each class. See Annex A for format of the file title and this assignment. This assignment must not exceed 75 words – the size of this bullet point.
- **Research Proposal Term Paper** – a research proposal (2000-word maximum: this includes the abstract but does not include your bibliography, budget, or work plan). Abstract due Week 4. The final project is due by 11pm on the Monday following our final class of the semester. See Annex A for details on format and content.
- **Term Paper Presentation** – you will each present your term papers in class. Each of you will also act as a discussant on someone else’s term paper. See Annex A for details. For this presentation, you will have to write up a one-page summary of your project that you will share with your discussant.
- **Individual ‘office’-hour meetings** – You can meet with me individually on Zoom. Set up an appointment by e-mailing me some proposed times. Best times are 12p to 2pm.

### [Obtaining Weekly Assigned Readings](#)

All required readings are available on Canvas under ‘Course Reserves’ or ‘Files’, or their URL is in this Syllabus. If they are not available or you cannot access them on the Canvas system, you are responsible to let me know (e-mail me), so I can fix the problem or send you a copy. Most readings should also be accessible through the library system, even if you cannot get them on Canvas. Note that I may change the readings as the semester progresses – 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 comments/questions on readings	20% (2% each)	You can miss 4 without penalty – extra credit for handing in all of them
Research Proposal Term Paper	45%	Term Paper Abstract is included in this grade
Term-paper Presentation	15%	Includes your 1-page overview/abstract
Participation in class	20%	Includes discussant roles

Fifty percent of the grade in each assignment is based on the instructor’s judgment of students’ progress 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 ASSIGNMENTS AND SCHEDULE

NOTE:

Readings will change during the semester – these are a first cut at what we will cover

### **Week 1 (Jan 11): Introduction – Reading Vulnerability I**

- Structure of the Course – the Syllabus
- Focus on the Rural Developing World
- Assignments
  - Readings – FLEXIBLE!
  - Discussant Roles
  - Written Commentaries
  - Term Papers
- What is vulnerability – your understandings
- What is vulnerability – my understanding, framings
  - Definitions of Vulnerability
    - Identifying Vulnerability
    - Quantifying Vulnerability
    - Explaining Vulnerability
    - Effects and Functions of Vulnerability
- Reading Vulnerability
  - Multiple meanings derived from context – indicator or analytic & which analytic
- Discipline your minds to think, read and write differently! Use words with great care! I will take points off your grades for misuse of words like:
  - Natural Disaster
  - Vulnerability to Climate
- Assign Week 2 Discussants for “Reading Vulnerability”

Lecture: From Hazards to Vulnerability

I will present the 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>

**Required Reading on Causes of Climate Change versus Causes of Vulnerability** (suggested additional readings for each week are in endnotes)<sup>1</sup> – **Page Count:** 63+33+15+2 = 113

- Patel, Raj and Jason W. Moore. 2017. “Introduction,” pp. 1-43, and “Cheap Nature,” pp. 44-63, *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. Pp. 63

- Fraser, Nancy. 2021. "Climates of Capital: For a Trans-Environmental Eco-Socialism," *New Left Review* 127: 94-127. Pp. 33
- Davis, Janae, Alex A. Moulton, Levi Van Sant, Brian Williams. 2019. "Anthropocene, Capitalocene, ... Plantationocene?: A Manifesto for Ecological Justice in an Age of Global Crises," *Geography Compass*. 13:e12438:1-15. Pp. 15
- O'Keefe, Phil, Ken Westgate and Ben Wisner. 1976. "Taking the naturalness out of natural disasters. *Nature*," 260, 566-567. Pp. 2

Today's readings are to help us move from thinking about the causes of climate change – very important to evaluate – to thinking about the causes of damages that are often associated with crises that follow climate events or climate change events.

**In preparation for today's class:** Before this initial class session, after reading the assigned articles, please read one academic or journalistic article 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). Please also look over the syllabus.

## [Week 2 \(Jan 18\): Reading Vulnerability II – on definitions and the locus of cause](#)

Definitions of vulnerability explicitly or implicitly identify a problem and its causes. How do different authors define vulnerability? What do they view as the problem? Where do they locate causes of vulnerability? What do they view as being vulnerable? To what outcome are vulnerable things or people vulnerable? What does each of these authors consider to be the 'social' question concerning climate and climate change? 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, danger, adaptation, resilience, exposure, sensitivity, hazard) implicit or explicit in their writings. Read them for where they place causality itself – the origins of fragility or danger.

Required Readings on Vulnerability Frames and Social Cause (suggested additional readings for each week are in endnotes)<sup>2,3,4,5</sup>

Page Count: 12+26+7+20+35+10+13 = 123

- Guldi, Jo and David Armitage. 2014. *The History Manifesto*. Cambridge: Cambridge University Press.
  - Ch. 3: The long and the short: climate change, governance, and inequality since the 1970s [read only to P. 73, up to the sub-section “Thinking about International Governance”] Pp. 61-73. Pp. 12
- Fabien Cottier, Marie-Laurence Flahaux, Jesse Ribot, Richard Seager, Godfreyb Ssekajja. In Review. “Re-framing the Frame: Cause and Effect in Climate-related Migration,” An article developed within the Working Group on Climate-Migration Modeling, Columbia University. Pp 26 [See articles on under ‘Files’ on Canvas.]
- Malm, Andreas and Alf Hornborg. 2014. “The Geology of Mankind? A Critique of the Anthropocene narrative.” *The Anthropocene Review*. Vol. 1, No. 1, Pp. 62-69. Pp. 7
- Nally, David. 2011. *Human Encumbrances: Political Violence and the Great Irish Famine*. Indiana: Notre Dame.
  - Introduction. Pp. 1-20. Pp. 20
  - Chapter I: Fatal Circumstances. Pp. 21-56. Pp. 35

Required Reading Sample Proposal [The Sample Proposals are under ‘Files’ on Canvas.]

- Sample Research Proposal 1: Fischer. Pp. 10
  - Accompanying Article: Fisher, Harry. 2021. “Decentralization and the governance of climate adaptation: Situating community-based planning within broader trajectories of political transformation,” *World Development*. Vol. 140:1-13. Online. November 2021. <https://doi.org/10.1016/j.worlddev.2020.105335>. Pp. 13

***Discussion: What is a Policy Research Proposal – what is a ‘problem’?***

## **Week 3 (Jan 25): Reading Vulnerability II – on definitions and the locus of cause**

Required Readings on Vulnerability Frames and Social Cause

Page Count: 21+35+20+22 = 98

- Hulme, Mike. 2011. Reducing the future to climate: A story of climate determinism and reductionism. *Osiris* 26, 245-266. Pp. 21
- Ribot, Jesse. 2013. “Vulnerability does not just fall from the Sky: Toward Multi-scale Pro-poor Climate Policy” in M.R. Redclift & M. Grasso, eds., *Handbook on Climate Change and Human Security*. Cheltenham: Edward Elgar. With preface titled “Cause and Blame in the Anthropocene – Vulnerability still does not just fall from the sky” [Reprint of Ribot 2010 with new forward and minor updates.] Pp. 164-199. Pp. 35

Required Reading Sample Proposal [The Sample Proposals are under 'Files' on Canvas.]

- Sample Research Proposal 2: Ramprasad. Pp. 20
  - Accompanying Article: Ramprasad, Vijay. 2018. "Debt and vulnerability: indebtedness, institutions and smallholder agriculture in South India," *The Journal of Peasant Studies*, DOI: 10.1080/03066150.2018.1460597. To link to this article: <https://doi.org/10.1080/03066150.2018.1460597>. Pp. 22

***PROJECTS: For next week, please bring in a research question/policy problem to discuss with class***

What problem do you want your research proposal to address? Think of a problem concerning the causes of climate-related disasters that you want to interrogate. Be concrete. Be specific. Tell us where this problem is and for whom it is a problem.

***Discussion of your Research Proposal ideas in class today***

**Week 4 (Feb 1): 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 a 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.

Video viewing: 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.

Required Entitlements Readings<sup>6,7,8</sup>

Page Count: 8+16+16+15+30+18 + Proposals: 16+20 = 139 pages

- Sen, A. 1980. "Famines," *World Development* 8(9): 613–621. Pp. 8
- Drèze, Jean and Amartya Sen. 1989. *Hunger and Public Action*. Oxford: Clarendon.
  - Ch. 1: Introduction. Pp. 3-19. PP. 16
  - Ch. 2: Entitlements and Deprivation. Pp. 20-34. PP. 16
  - Ch. 4: Society, Class and Gender. Pp. 46-61. PP. 15
- Fine, Ben. 1997. "Entitlement Failure" *Development and Change* Vol. 28, 617-47. Pp. 30.

- Watts, Michael. 1991. Entitlements or Empowerment? Famine and Starvation in Africa. *Review of African Political Economy*. Vol. 51, pp. 9-26. Pp. 18

More Required Readings – Sample Research Proposals

- Sample Research Proposal 3: Colette – approximately 10 pages – on Canvas
  - Accompanying Article: Colette, April. 2019. “Normalizing Discourses: Urban Flooding and Blaming the Victim in Modern Santa Fe, Argentina,” Ch. 5, pp. 87-107 in Lisa Reyes Mason and Jonathan Rigg (eds.) *People and Climate Change: Vulnerability, Adaptation and Social Justice*. Oxford: Oxford University Press. Pp. 20 [This is an article from the research done following the above proposal]
- Sample Research Proposal 4: Limeberry, Veronica. 2020. Fast Violence, Slow Resistance: Territoriality, Land Rights, and Collective Identity for Agrobiodiversity Governance in the Americas. Pp. 16

***Discussion of your Research Proposal ideas in class today***

***PROJECTS: Your Project Abstracts are Due by Class Today***

***Schedule Research Presentations for week 6 to 14***

**Presentation Schedule Table**

Week	Presenter 1 + Discussant		Presenter 2 + Discussant		Presenter 3 + Discussant	
6						
7						
8						
9						
10						
11						
12						
13						
14						

**Week 5 (Feb 8): Central Concept II: Property, Belonging and Authority**

The concept of ‘entitlement failure’ enabled researchers to reframe famine and other crises as an outcome of social and economic relations – rather than viewing crises as results of food shortage or absolute scarcity alone. Yet ‘entitlements’ are a very legalistic concept that misses many of the social and political-economic factors that shape people’s access to food and other resources they need to survive and thrive. Would an ‘access failure’ model be more powerful

than an 'entitlement failure' model? What would the difference be? These readings are designed to get us to think systematically about the distinction between entitlement and access and how the latter might enable us to deepen the analysis to include such factors as identity, belonging, citizenship, and structural relations of production and exchange. These also shape why people suffer in the face of climate variability and change.

#### Required Property, Belonging, Authority and Security Readings<sup>9</sup>

Page Count: 28+8+4+18+15+11+63+31+60+40 = 275; + proposal writing: 8+10=18 pp.; total = 293 pages – to be pared down to about 200 pages as we decide which pieces to read.

- Ribot, Jesse and Nancy Lee Peluso. 2003. A theory of access: Putting property and tenure in place. *Rural Sociology*. 68: 153-181. Pp. 28
- Selection from Mary Douglas
  - Douglas, Mary. 1966. *Purity and Danger*. London: Routledge and Kegan Paul.
    - Introduction. Pp. 1-8
  - Douglas, Mary. 1992. *Risk and Blame: Essays in Cultural Theory*. London: Routledge.
    - Introduction. Pp. 4
    - Ch. 1 "Risk and Blame." Pp. 3-21. Pp. 18
    - Ch. 2 "Risk and Justice." Pp. 22-37. Pp. 15
  - Douglas, Mary. 1992. *Risk Acceptability According to the Social Sciences*. New York: Russell Sage.
    - Ch. 5, Natural Risks, Pp. 53-64. Pp. 11
- Selection from Mahmood Mamdani
  - Mamdani, Mahmood. 2020. *Neither Settler nor Native: The Making and Unmaking of Permanent Minorities*. Cambridge: Harvard University Press.
    - Introduction. "The Indian Question in the United States." Pp. 37-100. Pp. 63
  - Mamdani, Mahmood. 1996. *Citizen and Subject: Contemporary Africa and the Legacy of Late Colonialism*. London: Routledge.
    - Introduction: "Thinking through Africa's Impasse." Pp. 3-34. Pp. 31
- Selection from Margaret Somers
  - Somers, Margaret. 2008. *Genealogies of citizenship: markets, statelessness, and the right to have rights*. Cambridge: Cambridge University Press.
    - Introduction: "Theorizing Citizenship, Rights and Statelessness." Pp. 1-60. Pp. 60
  - Somers, Margaret R. and Christopher N.J. Roberts. 2008. Toward a New Sociology of Rights: A Genealogy of "Buried Bodies" of Citizenship and Human Rights. *Annual Review of Law and Social Science* 4:385–425. Pp. 40

Required Readings – Research Proposals & Proposal Writing

- [Adam Przeworski and Frank Salomon. The Art of Writing Proposals. https://www.fordham.edu/download/downloads/id/3367/Social\\_Science\\_Research\\_Council\\_SSRC\\_On\\_the\\_Art\\_of\\_Writing\\_Proposals.pdf.](https://www.fordham.edu/download/downloads/id/3367/Social_Science_Research_Council_SSRC_On_the_Art_of_Writing_Proposals.pdf) Pp. 8
- Lund, Christian. 2014. Of what is this a case? Analytical movements in qualitative social science research. *Human Organization*, 73(3): 224-34. Pp. 10

## **Week 6 (Feb 15): 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 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 *Capabilities*<sup>10</sup>

Page Count: 18+3+24+21+14 = 80 pages.

- Sen, Amartya. 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
- Bebbington, Anthony. 1999. Capitals and Capabilities: A framework for analysing peasant viability, rural livelihoods and poverty. *World Development*, 27(12), 2021-44. Pp. 24
- Nussbaum, Martha. 2001. Adaptive preferences and women's options. *Economics and Philosophy*, 17: 67-88. Pp. 21
- Osmani, S.R. 2005. Poverty and Human Rights: Building on the capability approach. *Journal of Human Development*, 6(2), 205-219. Pp. 14

### ***Scheduled Research Proposal Presentations in Class – see Annex A for Presentation Instructions***

## Week 7 (Feb 22): Central Concepts III: 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 environmental and social forces into account? What are the gender, class, caste, ethnic, and other social divisions along which vulnerability is differentiated, 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 anon). 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 allow us to explore different theoretical approaches with different mixes of agency and structure behind them.

Required Readings<sup>11,12</sup>

Page Count: 26+26+30 = 82 pages.

- Agrawal, Arun. 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>
- Ayers, Jessica. 2011. "Resolving the adaptation paradox: Exploring the potential for deliberative adaptation policy-making in Bangladesh", *Global Environmental Politics*, 11(1), 62-88. Pp. 26.
- Ribot, Jesse, Papa Faye and Matthew Turner. 2020. "Climate of Anxiety in the Sahel: Emigration in Xenophobic Times," *Public Culture*. Vol. 32, No. 1. Pp. 45-75. Pp. 30

### ***Scheduled Research Proposal Presentations in Class***

## Week 8 (Mar 1): Central Concept IV: Structure and Structural Violence

Crises often follow events such as droughts or storms. But what about the actions, policies, social and political-economic arrangements that place people at risk before these natural hazards arrive? How do we theorize, analyze, and think about the causes of precarity that predate or are not directly and visibly implicated in crisis?

## Required Readings on Structural Violence<sup>13</sup>

Page Count: 24+2+28+20+21 = 95 pages

This group of papers worked beautifully for discussion!

- Galtung, Johan. 1969. "Violence, Peace, and Peace Research," *Journal of Peace Research* V. 6, Pp. 167-91. Pp. 24
  - Read this article for his definition of violence and how he relates it to the structural. What are the implications of this piece for the analysis of the causes of climate-related vulnerabilities? What analytic tools does it give us?
- Bourdieu, Pierre. 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](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.]
  - Read this too with an eye to how the idea of precarity helps us understand the causes of vulnerability as structural.
- Rose, Nicholas. 1996. Death of the Social? Re-figuring the Territory of Government. *Economy and Society*. Vol. 25, No. 2, Pp. 327-54. Pp. 28
- Farmer, P. 2004. An Anthropology of Structural Violence. *Current Anthropology*, 45(3), 305-25. Pp. 20
- Nixon, Rob. 2011. *Slow Violence and the Environmentalism of the Poor*. Cambridge: Harvard University Press.
  - Ch. 4: Slow Violence, Gender and the Environmentalism of the Poor. Pp. 128-149. Pp. 21

## ***Scheduled Research Proposal Presentations in Class***

## **No Class on March 8<sup>th</sup> – Spring Break!**

## **Week 9 (Mar 15): Covid19 – A Revelatory Crisis**

How did covid19 change the way we think about the causes of vulnerability in America? What does the covid19 crisis say about climate and vulnerability in the US and the World? Paul Farmer (2020), read earlier, starts us on this discussion of how to explain disease – the social etiology of illness.

**Apocalypse** – Old English, via Old French and ecclesiastical Latin from Greek *apokalupsis*, from *apokaluptein* 'uncover, reveal', from *apo-* 'un-' + *kaluptein* 'to cover'.

## **Revelatory crisis**

Covid ripped the covers off  
stark naked  
warts and all  
revealed

Precariat  
gig work  
1099 or W2

We see who's who  
who are you?  
have or have not?  
hand to mouth...

just don't touch your face.

Jesse Ribot 31 March 2020

## Readings on Covid as Revelatory Crisis<sup>14</sup>

Page Count: 24+9+6+11+12 = 62 pages.

- 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, pp. 471-95. Pp. 24.
- Dzingirai, Vupenyu, Lindiwe Mangwanya, Melissa Leach, Annie Wilkinson, Sally Bukachi, 2017 "Structural drivers of vulnerability to zoonotic diseases in Africa," *Philosophical Transactions B* 372: 20160169. Pp. 9 See: <https://royalsocietypublishing.org/doi/pdf/10.1098/rstb.2016.0169>.
- Mostafanezhad, Mary. 2020. "Covid-19 is an unnatural disaster: Hope in revelatory moments of crisis" *Tourism Geographies*. Pp. 639-645. Pp. 6
- Adam Michael Auerbach, Tariq Thachil. 2021. "How does Covid-19 affect urban slums? Evidence from settlement leaders in India," *World Development*. Vol. 140. Pp. 11
- Gupta, Divya, Harry Fischer, Suchita Shrestha, Syed Shoaib Ali, Ashwini Chhatre, Kamal Devkota, Dil Khatri, Pushpendra Rana. *Forthcoming*. Dark and bright spots in the shadow of the pandemic: Rural livelihoods, social vulnerability, and local governance in India and Nepal. *World Development*. 141 (2021) 105370 Pp. 1-12. Pp. 12

## ***Scheduled Research Proposal Presentations in Class***

## Week 10 (Mar 22): Progressive Contextualization as Research Method

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<sup>15,16</sup>

Page Count: 24+31+13+21+29 = 118 pages

- Zachariadis, M., Scott, S., & Barrett, M. 2013. Methodological implications of critical realism for mixed-methods research. *MIS quarterly*, 855-879. Pp. 24
- Bhaskar, R. 1998. "Philosophy and Scientific Realism," in *Critical Realism: Essential Readings*, M. Archer, R. Bhaskar, A. Collier, T. Lawson and A. Norrie (eds.), London: Routledge, pp. 16-47. Pp. 31
- 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
- Bates, Robert, Avner Greif, Margaret Levi, Jean-Laurent Rosenthal, Barry R. Weingast. 1998. *Analytic Narratives*. Princeton: Princeton University Press. Introduction, pp. 3-23. Pp. 21
- Cronon, William. 1992. A place for stories: Nature, history, and narrative. *The Journal of American History*, (March), 1347-1376. Pp. 29

### ***Scheduled Research Proposal Presentations in Class***

## Week 11 (Mar 29): Adaptation & Resilience – Solutions?

This class elaborates on 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 catalog in your mind the different ways in which the different authors link human and ecological systems. 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?

Work in some language in the above paragraph so that it states that resilience contrasts with vulnerability – as resilience (like adaptation) is forward looking and vulnerability looks back and asks ‘why’.

#### Readings on Adaptation and Resilience

Page Count: 17+3+3+9+17 = 49 pages

Required Readings on Adaptation<sup>17,18</sup> and Resilience<sup>19</sup>

- 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
- 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, 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
- McDonnell, Siobhan. 2019. “Other Dark Sides of Resilience: Politics and Power in Community-Based Efforts to Strengthen Resilience,” *Anthropological Forum*, 30(1-2): 55-72. DOI: 10.1080/00664677.2019.1647828 To link to this article: <https://doi.org/10.1080/00664677.2019.1647828>. [Brings ‘participation’ into question] Pp. 17

#### ***Scheduled Research Proposal Presentations in Class***

### **Week 12 (Apr 5): On Responsibility and Response: Cause and Blame in the Anthropocene?**

Nobody has the right to obey.  
- Hannah Arendt



We want to understand causes in order to identify solutions. , Indicating causality, however, is contentious because it can lead to responsibility, blame, and liability. While those indicated as responsible may not like it, *responsibility is key, to response* – it identifies who should act and provides incentive (as in potential punishment). This section is designed to help us think through the relation between cause and response. This relationship is at the core of 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 solutions 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 Responsibility<sup>20</sup>

Page Count: 1+17+18 = 36

- Taddei, R. 2008. Blame: The hidden (and difficult) side of the climate change debate. *Anthropology News*, pp. 45-6. Pp. 1
- Rudiak-Gould, P. 2015. "The social life of blame in the Anthropocene," *Environment and Society: Advances in Research*, 6, 48-65. Pp. 17
- Ribot, Jesse. 2022. "Framing Causality and Responsibility: The Social Nature of Climate-related Crises. *Journal of Peasant Studies*. Forthcoming. Pp. 18 – to be posted under Files on Canvas.

### ***Scheduled Research Proposal Presentations in Class***

## **Week 13 (Apr 12): Climate Response – Racism, Justice and Human Rights**

Rights are central to any policy response to anything. They shape how policy is made and received. This section gives us some sense of the current reflections on justice in the climate arena. It starts with a classic piece and then gets into more radical concepts that are often not taken into account in the arena of climate-related vulnerability.

Readings on Racism, Justice<sup>21</sup>

Page Count: 18+4+8+6+5+5 = 46

- Jennifer Franco, Clara Mi Young Park & Roman Herre. 2017. "Just standards: international regulatory instruments and social justice in complex resource conflicts," *Canadian Journal of Development Studies*, 38:3, 341-359, DOI: 10.1080/02255189.2017.1298520. To link to this article: <http://dx.doi.org/10.1080/02255189.2017.1298520>. Pp. 18
- O'Donoghue, Amy. 2015. "Sovereign Exception: Notes on the Thought of Giorgio Agamben," in *Critical Legal Thinking – Law and the Political*. <https://criticallegalthinking.com/2015/07/02/sovereign-exception-notes-on-the-thought-of-georgio-agamben/>. Pp. 4

- VIDEO on Bare Life – worth viewing to understand Weheliye’s use of Agamben: Agamben Homo Sacer Animatic - YouTube  
<https://www.youtube.com/watch?v=pGUxQmRNhtk> 8 minutes
- 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
- 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
- Kashwan, Prakash and Jesse Ribot. 2021. “Violent Silence: Erasing History and Justice in Global Climate Negotiations & Action.” *Current History*. November Issue. Pp. 326-331. Pp. 5

Some potentially interesting related videos:

- “The Story of Eco-Fascism: The Dark History of Environmentalism” See PATREON video too: <https://www.youtube.com/watch?v=FkhmP7yDWeY>
- The video is from "[Our Changing Climate](#)", it is a team led by one guy who does video essays on various topics related to climate change. For this particular video the title is "Climate Change's White Supremacy Problem" and follow on articles here:  
<https://www.notion.so/Eco-Fascism-Resources-3e50d3139007429ba1920dfab2404d4a>

### ***Scheduled Research Proposal Presentations in Class***

## **Week 14 (Apr 19): Wrapping Up**

### ***Synthesis Discussion***

### ***Scheduled Research Proposal Presentations in Class***

***PROJECTS: Final project is due by 11pm on the Monday after this last class via e-mail & on Canvas***

Please Review This Class! It is important. I want your feedback and suggestions!

## ***The End of Course!***

Are you thinking differently about vulnerability?

# ANNEXES

---

## [Annex A: Course Assignments](#)

### ***Class Assignment Format and Submission Procedures***

**IMPORTANT NOTE:** All assignments must be in 12-point font and single-spaced. All assignments must be handed in to me via my e-mail: [Ribot@American.edu](mailto:Ribot@American.edu) AND posted on Canvas. The electronic copies of all assignments must be submitted in Word (**NO** GOOGLE DOCS or .pdfs), and the file title must start with your last name, followed by the assignment title. So, if you are Anna Eggplant, then the file should be titled: **Eggplant Anna Week 3 Reading Comment.doc** (or **.docx**), or **Eggplant Anna Abstract.doc**. Inside the file, you must also have your name and submission date written at the top of the page.

### ***Written Comments on Weekly Readings***

Weekly comments on the readings should touch on each article and should not exceed 75 words per week (minimum 12-point font, single spaced, 1.5-inch margins). Limit your comments to 75 words! These can be in a paragraph format or in bullet points, as you prefer. Please submit these to me on Canvas by noon of the day before class..

- Some ideas for what to include in your comments:
  - a. Include at least one discussion question and at least one quote from the readings that surprised or struck you – i.e., what do you find new and surprising.
- Think about the following when you read:
  - b. What do the articles contribute to theory – what is new in them?
  - c. What are the key questions the articles evoke?
  - d. Vis-à-vis your own interests, what do you find surprising, new and interesting in the articles, and why?
  - e. What are some strengths and shortcomings of the articles?
  - f. Compare and contrast the arguments or theoretical positions of the different articles where possible.
  - g. What was incomprehensible to you in the articles? What did you not understand?
  - h. From the readings, is there a memorable quote strikes you?

This assignment is designed so that you come in with good discussion questions grounded in the readings. 75 words gives you plenty of space. You must read all of the required readings each week. You should touch on as many of the readings as you can in your comment, but if

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

### ***Term Paper Writing Project***

The writing assignment for this course is a **2000-word (Maximum) Term Paper in the form of a Research Proposal.**

A policy research proposal poses a problem and asks a question addresses an unresolved problem (related to climate adaptation or vulnerability reduction) that has policy relevance – i.e. is about the effects of existing policy or is amenable to resolution by policy intervention. 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.

### **Note on In-text Reference Style**

Please use in-text references in all of your writing assignments. So, Ribot (2018:4) said “the world is round.” Then republicans announced that it is a rhombus with spikes (Trump 2019:745; Guliani 2020:17). Note that all claims must be supported in a text by a reference or an argument. In your bibliography, use whatever style you are comfortable with – but be consistent. If you do not have a preference, you can use the same style I use for the readings assigned in this class.

### **Note on Bibliography Style**

Be consistent. Use a reference style in your reference list or bibliography that gives the full citation as you would see it in an article or book. Choose a style and stick with it.

### **Term-Paper/Research-Proposal Abstract**

Everyone must submit a 150-word abstract that describes your intended project on the week specified in the syllabus. Start with a title for your research proposal! Provide a good pithy project title that reflects something to catch the interest of the reader – a title that indicates that the reader will discover something new and interesting.

*A problem* is defined as an instance in which someone or some group either suffer losses or damages or cannot attain something they need. When you identify a problem, you must state or identify for whom it is a problem. For, if there is nobody who cares about this phenomenon you are looking at, it is not a problem. Problems are human/social. If you say the problem is that animals are suffering. Then you have to tell us why this problem matters and to

whom. It is not the animals themselves suffering that is the problem. It is that someone cares about it. If the problem is 'climate-related migration' then you have to tell us who is concerned (specific groups in specific places) and for what reasons (i.e. losses, damages or changes that might hinder their gaining benefits they desire or need).

This is a social science research proposal assignment. This means we are looking at the causes of a social problem (i.e. a problem that involves individuals and groups and the ways they suffer from or generate losses and damages or deprivations). Your social science Research Proposal Abstract must specify:

- The problem you are studying,
- Your research question,
- The case to be studied, and
- Why it is important or interesting.
- Bibliography (see below – not counted in word count of abstract)

Be specific! Your problem cannot be something generic such as 'climate change' or 'famine'. You must develop a question about a specific problem in a specific place. In the first two sentences of the abstract you must state clearly the unsolved problem/conundrum/puzzle/issue you are going to study. 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.

Once you state the problem in the first sentences, you state the question you are to ask about that problem that will help us to understand why it is happening and thus how we can potentially solve it. A research question is NEVER about 'how to' do something. A research question is about 'why' something is happening. It is about causality. If you state that you are going to figure out how to fix something, you are not asking a social science research question. The research proposals you will write for this class are all to be about why something is happening – causality is central and it is what you are aiming to understand via your question.

Please also include a bibliography after your abstract with at least five key documents you will use for the background – add a line under each that says what you expect to use that article/document for. I will provide feedback in the week after you submit your abstracts.

Be prepared to informally discuss your abstract/project idea in class – tell us the problem you'll work on, why it is a problem and for whom, the main question or issue, and why you think it is important. Please be prepared to tell us who your audience is.

### ***In-Class Presentation of your Term-Paper Project***

You will present your Term Paper in class. Presentation structure is described below – after the assignment description.

## ***A Policy Research Proposal Term Paper***

The Research Proposal term paper is 2000 words maximum. Please identify a research question you would want to pursue were you doing a Ph.D. Write a full research proposal. The best approach is to identify a funding agency and use their template (you may actually want to apply for a grant – such as a Fulbright or other funding to do field research). I suggest that you use the Fulbright, SSRC, or NSF formats or the format of a grant you actually intend to apply for (if you do so, my specified word limit, font size, and double spacing still apply). You can also follow my outline of a research proposal presented below. The research proposals will be judged and ranked as if they were submitted to an actual funding agency. If you choose to apply to a real program for funding, then use their format and questions, but the length is still limited to 2000 words and you still must address the elements of a proposal in the outline below.

This project requires:

1. identifying your problem;
2. identifying the audience you are writing to;
3. developing a policy research question or hypothesis;
4. locating it within the literature;
5. explaining its broader policy significance (that is, making it clear why anyone should care about what is being investigated and what might be found);
6. explaining what data are necessary for answering the question;
7. 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);
8. estimating a timeline; and
9. estimating funding needs.

**Suggested proposal outline.** A typical policy-research proposal has the following components. This is just an example—you can use a different outline if you wish. Nonetheless, you must somehow include each of these elements.

- I. Title
- II. Abstract—150 words max
- III. 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
- IV. Background—What does the literature have to say about your problem
- V. Research Questions and Hypotheses
- VI. Case
  - a. Where you are going to study your problem

- b. Why this is an advantageous place for studying your problem
- VII. Merit
  - a. Intellectual merit
    - i. Contribution to applicable knowledge
    - ii. Contribution to theory
  - b. Broader merit
    - i. Contribution to change in the world – in your case and generally
- VIII. Methods
  - a. How you get from your questions to answers
  - b. Timeline
- IX. Budget
- X. Bibliography

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

**Climate Change Question Example**

Hypothesis or Primary Research Questions	Operational Questions	Data Required to answer operational questions	Methods for gathering data
<p>Q: How many deaths did Cyclone Idea cause?</p> <p>H1: The number of deaths attributable to the cyclone is dependent on the analytic frame chosen.</p> <ul style="list-style-type: none"> <li>• A hazards frame will attribute all deaths to the cyclone</li> <li>• A social-causal frame will attribute deaths to underlying vulnerabilities in place</li> </ul>	<p>H1Q1: How many deaths are attributed to the cyclone under a Vulnerability model?</p> <p>H1Q2: How many deaths are attributed to the cyclone under a Hazards model?</p> <p>H1Q3: What assumptions in the models explain differences found?</p>	<ul style="list-style-type: none"> <li>• Post cyclone death statistics</li> <li>• A vulnerability analysis of causes of death</li> <li>• A hazards assessment of damages following the storm</li> <li>• Documents with the analyses that can be evaluated for the assumptions explicit and implicit in the frames used</li> </ul>	<ul style="list-style-type: none"> <li>• Statistical analysis</li> <li>• Analytic methods of vulnerability and of hazards analysis</li> <li>• Document review and analysis – discourse analysis</li> <li>• Interviews of those who conducted analyses of damages and deaths</li> </ul>
<p>H2: Better communication would reduce fatalities that follow cyclones in this region</p>	<p>H2Q1: In places deaths occurred following the storm, what early warnings were communicated.</p> <p>H2Q2: In places with different early warning messages were linked differences in death tolls?</p>	<ul style="list-style-type: none"> <li>• Data on early warning practices place by place</li> <li>• Data on who in official positions knew what when</li> <li>• Data on who in affected places heard what when</li> <li>• Data on damages and deaths in each of these areas</li> </ul>	<ul style="list-style-type: none"> <li>• Government documents</li> <li>• Interviews with those in government communications roles</li> <li>• Interviews of those in affected zones</li> <li>• Surveys</li> <li>• Document review</li> </ul>

## Democracy Research Question Example

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"> <li>-Change in accountability</li> <li>-Change in responsiveness</li> <li>-Change in citizen engagement</li> <li>-Change in popular demands being reflected in decisions being taken</li> </ul>	<p>Measures before and after decentralization policy implementation of:</p> <ul style="list-style-type: none"> <li>-Observation of sanctioning by population</li> <li>-Surveys of popular demands</li> <li>-Surveys of decision maker understanding of popular demand</li> <li>-Observation of decision making processes</li> <li>-Decisions (or policies) made</li> </ul>
	<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"> <li>-Change in forest management</li> <li>-Change in hectares under management</li> <li>-Quality of forest health</li> <li>-Change in local income from forests</li> </ul>	<ul style="list-style-type: none"> <li>-Observation and historical interviews concerning change in forest management</li> <li>-Documentation of forest service of forests under management</li> <li>-Transect studies of ligneous density and species mix before and after decentralization reform</li> </ul>

This table is just an example from a local democracy research program—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.

### 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/](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>

### **Some additional methods books/articles that may be of help**

- Sayer, Andrew. 1992. *Method in Social Science: A Realist Approach*, Second Edition. New York: Rutledge.
- Flyvbjerg, Bent, Todd Landman, Sanford Schram. 2012. *Real Social Science: Applied Phronesis*. Cambridge: Cambridge University Press.
- Brady, H.E. and D. Collier. (2004). *Rethinking social inquiry: Diverse tools, shared standards*. London: Rowman & Littlefield Publishers.
- Becker, Howard S. 2017. *Evidence*. Chicago: University of Chicago Press.
- Ribot, J. and N. L. Peluso. 2003. A theory of access: Putting property and tenure in place. *Rural Sociology*. Vol. 68, pp. 153-181.
- Bennett, A. 2010. Process tracing and causal inference. Ch. 10 in Henry Brady and David Collier (eds.). *Rethinking Social Inquiry*. Rowman and Littlefield.
- Cronon, W. 1992. A place for stories: Nature, history, and narrative. *The Journal of American History*, (March), 1347-1376.
- Lund, Christian. 2014. "Of What is This a Case?: Analytical Movements in Qualitative Social Science Research." *Human Organization* 73(3): 224-234.
- Bates, Robert, Avner Greif, Margaret Levi, Jean-Laurent Rosenthal, Barry R. Weingast. 1998. *Analytic Narratives*. Princeton: Princeton University Press. Introduction, pp. 3-23. Pp. 21

### ***Class Presentations – How to Structure***

Presenter: Each of you will be expected to present your project to the class. In class you will present your work in less than 10 minutes. Please be sure to include in your presentation the points in the outline below. Then the discussant will take 3 to 5 minutes to comment, and class, facilitated by the discussant, will discuss your work for 7 more minutes without the presenter intervening. Presenter can then enter discussion for last 3 minutes.

Discussant Role: The discussant will give a 3- to 5-minute comment. The discussant's role is to give some constructive feedback on your project and to help lead a discussion. Discussants should ask about whether each of the elements of a proposal are present and what more needs to be done to develop the question, hypotheses, or arguments. It is often helpful for the discussant to try to simply repeat back to the author what they understand the core problem to be. This is usually a very productive exercise for the author.

Please use this outline (or the sample research proposal outline above) for your presentation – just to make sure that these elements are present in your presentation:

- a. The problem you are addressing and why it matters and to whom
- 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.

Share with Professor and your Discussant a 1-page single-spaced summary that states Problem, Question, Hypotheses, Case to be studied, Methods to be used. Due to discussant and to Professor on the Monday prior to class. This can be a slightly expanded and redeveloped version of your abstract.

#### **Structure of the sessions:**

- Your Presentation: 10 minutes
- Discussant: 3-5 minutes
- Class Discussion: Remaining 10 minutes
  - 7 minutes with author gagged (not allowed to intervene)
  - 3 minutes with author involved

## **Annex B: Some Key Areas *not* Covered in Class this Semester**

### **Social Contracts and The Precariat**

Required Readings on Social Contracts and Vulnerability<sup>22</sup>

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 [Also relevant for issues of responsibility.]
- 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.]

### **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](http://www.oxfordhandbooks.com)
  - Watts, Michael J. 2014. “A Political Ecology of Environmental Security,” *Environmental Security Vol. XX*, pp. 82-101. Pp. 19
  - 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, Marc, Tony Weis, Amita Baviskar, Saturnino M. Borrás Jr, Eric Holt-Giménez, Deniz Kandiyoti & Wendy Wolford. 2014. “Introduction: critical perspectives on food sovereignty,” *The Journal of Peasant Studies* Vol. 41, No. 6, 911–931. Pp. 20
  - McMichael, Philip. 2014. “Historicizing food sovereignty,” *The Journal of Peasant Studies* Vol. 41, No. 6, 933–957. Pp. 24
  - 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

### **Justice and Governing**

#### Required Readings

- 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.
- 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

### **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 SSRIC'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.
- Newkirk II, Vann R. 2020. "The story of an unnatural disaster." *The Atlantic* <https://www.theatlantic.com/podcasts/floodlines/>.

### **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. 4<sup>th</sup> 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 Risk<sup>23</sup>

- Ribot, J., Papa Faye and Matthew Turner. 2020. 'Climate of Anxiety in the Sahel: Emigration in a Xenophobic Anthropocene', *Public Culture* Vol. 32, No. 1. Pp. 45-75.

- 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.
- 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 on Dust Bowl:**

- 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.
- 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]
- Cook, Benjamin I., Ron L. Miller, and Richard Seager. 2009. "Amplification of the North American 'Dust Bowl' drought through human-induced land degradation," *PNAS* vol. 106 no. 13 4997-5001.
- Hansen, Zeynep K. and Gary D. Libecap. 2004. "Small Farms, Externalities, and the Dust Bowl of the 1930s," *Journal of Political Economy*, vol. 112, no. 3. Pp. 665-694.

#### **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/b6QEdbI5zrg>
- 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>.
- 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>

## 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. **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 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.
- 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.

## On the Anthropocene

### Required Readings on the Anthropocene

- 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 Scales<sup>24</sup>

- 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](http://www.oxfordhandbooks.com)). Oxford University Press. *The Oxford Handbook of Food, Politics and Society*, edited by Ronald Herring. Pp. 17

## [On Catastrophism](#)

- Bendell, J., Sutherland, N. and Little, R. (2017), "Beyond unsustainable leadership: critical social theory for sustainable leadership", *Sustainability Accounting, Management and Policy Journal*, Vol. 8 Issue: 4, pp.418-444. Available at: <https://doi.org/10.1108/SAMPJ-08-2016-0048>
- Hulme, Mike. Climate Emergency Politics is Dangerous" *Issues in Science and Technology*. FallPp 23-25.

## [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/STEPSW\\_P\\_105\\_Scoones\\_final.pdf](https://opendocs.ids.ac.uk/opendocs/bitstream/handle/123456789/14470/STEPSW_P_105_Scoones_final.pdf)

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](#).

## ***Democracy and Vulnerability***

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 relationship than in his initial two-country comparison?



Required Readings on Climate and Democracy:<sup>25</sup>

Page Count: 18+8+17+18+21 = 82

- Näsström, S. and S. Kalm. 2014. Democratic Critique of Precarity. *Global Discourse*. Pp. 1-18. PP. 18 [Cf. Swyngedouw 2013]
- Swyngedouw, Erik. 2013. The Non-political Politics of Climate Change. *ACME: An International E-Journal for Critical Geographies*, 12(1), 1-8. Pp. 8
- Brockhaus, M.; Kambire, H. 2009. “Decentralization: a window of opportunity for successful adaptation to climate change.” Pp. 399-416 in Adger, N. W., Lorenzoni, I., O'Brien, K.L., (eds.) *Adapting to climate change: thresholds, values, governance*. Cambridge: Cambridge University Press. Pp. 17
- Bullard, Robert D. and Beverly Wright. 2009. “Race, Place and Environmental Justice After Hurricane Katrina: Struggles to Reclaim, Rebuild, and Revitalize New Orleans and the Gulf Coast. Boulder: Westview Press. Introduction, Pp. 1-14. Pp. 14 [This piece should accompany the Neil Smith Katrina piece.]
- 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
- Certainly read Amartya Sen’s piece on China and India – comparing them and arguing that democracy shapes food security.

## ***On Uncertainty***

“It is imperative in science to doubt; it is absolutely necessary, for progress in science, to have uncertainty as a fundamental part of your inner nature. To make progress in understanding, we must remain modest and allow that we do not know. Nothing is certain or proved beyond all doubt. You investigate for curiosity, because it is unknown, not because you know the answer.”

(Richard Feynman 1956/2001: 247–8 in Scoones 2019:6)

- Scoones, Ian. 2019. “What is Uncertainty and Why Does it Matter?” STEPS Center Working Paper 105, IDS Sussex.
- Helga Nowotny, in her book, *The Cunning of Uncertainty*, argues that uncertainty is ‘written into the script of life’ (2015: 1).

### **Films Worth Checking Out**

- *Morte e Vida Severina* – DVD
- Video: *Trouble the Water* (2008) – 90-minute academy award-nominated documentary film on Katrina (<http://www.troublethewaterfilm.com/>).  
[https://tubitv.com/movies/462757/trouble-the-water?utm\\_source=google-feed&tracking=google-feed](https://tubitv.com/movies/462757/trouble-the-water?utm_source=google-feed&tracking=google-feed).
- Naomi Klein Film: [This Changes Everything: Capitalism vs. The Climate](#). [YouTube video](#) of a one-hour lecture by Klein on her book with that title – if you are interested. The link to the film is: <https://www.youtube.com/watch?v=xb4wp4QK2PU>.

View these films and comment on each. How do these filmmakers define vulnerability? Where do they place its causes? What is the link between cause and responsibility? Comments for all three together should not exceed one half a page! This is the ‘reading comment’ for the week.

## **Annex C: Defining Vulnerability & Related Terms – a living document**

### **Jesse Ribot 2011 Definitional Notes**

I keep a running update of this set of definitions. You can give me feedback if you like and help me to update this list. I have not bothered since 2011 – despite that two Intergovernmental Panel on Climate Change (IPCC) reports have already updated their definitions. The basic idea of this document is to help readers sort through the jungle of definitions that ultimately steer attention toward different problems and different causes.

“...safety, and lack of it, are set up in the time before disaster happens.”  
(Hewett 1997:22)

“...it has been shown repeatedly that starvation primarily affects, uproots and kills the already hungry.”  
(Hewett 1997:36)

**Vulnerability:** From the Latin root *vulner*, to wound plus *able*, given to, tending to or able to. In its most basic form vulnerability means the ability to be wounded (Oxford English Dictionary 1979). Vulnerability is usually portrayed in negative terms as “being prone to or susceptible to damage or injury” (Blaikie et al. 1994:9). To be vulnerable is to be at risk of a wound or negative outcome. Vulnerability is, as Hewett (1997:26-7) states, ‘is an attribute of persons or activities and aspects of community’, that ‘arises from everyday life’, and ‘describes a potential state of affairs’. He continues, ‘I am vulnerable to things that can happen to me, but they may not’. Nelson, Adger and Brown (2007:396) define vulnerability as “the susceptibility of a system to disturbances determined by exposure to perturbations, sensitivity to perturbations, and the capacity to adapt.”

**Climate-related vulnerability:** The Intergovernmental Panel on Climate Change (IPCC) defines climate-related vulnerability as ‘The degree to which a system is susceptible to, or 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 variation to which a system is exposed, its sensitivity, and its adaptive capacity’ (Houghton et al. 2001; McCarthy et al. 2001 cited in Füssel and Klein 2006:305). Another common definition in the climate literature is ‘the degree to which a system, subsystem, or system component is likely to experience harm due to exposure to a hazard, either a perturbation or stress/stressor’ (Turner et al. 2003a:8074). Climate-related vulnerability has also been defined ‘the characteristics of a person or group in terms of their capacity to anticipate, cope with, resist, and recover from the impact of a natural hazard. ... It involves a combination of factors that determine the degree to which someone’s life and livelihood is put at risk by a discrete and identifiable event in nature or society’ (Blaikie et al. 1994:9). ‘In all formulations, the key parameters of vulnerability are the *stress* to which a system is *exposed*, its *sensitivity*, and its *adaptive capacity*.’ (Adger 2006:269). Climate scientists tend to use the term to mean likelihood of a climate event to occur and have an ‘impact’ where vulnerability is a function of a hazard, while social scientists tend to stress people’s ability to cope with stresses in which vulnerability is a state of the social system (Brooks 2003:2-4).

**To what are people or things vulnerable?** Many scholars and practitioners consider people or systems to be vulnerable to hazards, including trends or events such as progressive desertification or floods (Ionescu et al. 2005). But, this is not consistent with the definitions above—since these are not harms or outcomes, they are insults. Rather, people are vulnerable to outcomes such as economic loss, hunger, or dislocation. This distinction generates confusion in the literature. If ‘the system’ is vulnerable to climate events, then the analysis may focus on the nature and probability of those events. If it is vulnerable to being wounded, then the analysis may productively start by examining the damages and their multiple causes. In any analysis of vulnerability, it is critical to distinguish whether vulnerability should be defined with respect to an external stressor or with respect to an undesirable outcome (Füssel and Klein 2006: 305; Füssel 2007:156-6).

**What is vulnerable?** In some usages, the term vulnerability is applied only to people (Downing 1991; Blaikie et al. 1994; Cannon, Twigg and Rowell n.d.:6; Sen 1981). Some apply the concept to places or ecosystems (Metzger et al 2005 in Füssel 2007:157). Other theorists and practitioners apply vulnerability to systems, environments, livelihoods or economies (IPCC in McCarthy et al. 2001). This distinction, too, introduces confusion into debates. To avoid confusion, Blaikie et al. (1994:25) consider that people are vulnerable, places, such as marginal lands or dangerous work environments, are ‘unsafe’, livelihoods, settlements locations, environments, or infrastructure are ‘unsafe’, ‘fragile’ or ‘unstable’. One suggestion is to call vulnerability of people ‘social vulnerability’ and vulnerability of ecosystems or things ‘biophysical vulnerability’ (Brooks 2003:3).

**Starting-point vulnerability or contextual vulnerability:** This approach views climate change as processes of climate-society interactions. Climate change and variability occur in a political, economic, institutional, and social context. The exposure unit is affected by climate and by this broad context in which it is located. Climate is viewed here as altering the biophysical world, altering the context in which exposed individuals or communities respond to other ongoing processes. People are vulnerable to negative outcomes, the causes are multiple, and climate is one cause among many that shapes the biophysical world; and therefore, affect the political, economic, and social factors that shape vulnerability. The analysis here starts with the location or origination point of the vulnerability—the unit at risk. (O’Brien et al. 2007:76.)

**End-point vulnerability or outcome vulnerability:** This approach considers the impacts (or outcomes) of a projected change in climate on a particular biophysical, social ‘exposure’ unit. This framing is consistent with IPCC’s Third Assessment Report, which views vulnerability as a function of exposure, sensitivity, and adaptive capacity (and the above IPCC definition that considers harm to be the ‘adverse effect of climate change’). Climate change events or stresses upon an exposure unit are offset by adaptation produce outcomes. By viewing outcomes as direct impacts of hazards, end-point definitions tend to emphasize a proximate link between climate and disaster. They differ from ‘starting-point’ definitions by viewing outcomes as the result of a climate event rather than accounting for contextual mediating factors that make climate one among many stressing, varying, and risk producing factors. The end-point or outcome definitions do not view vulnerability as a condition of the placed-based social and economic arrangements that exists regardless of climate trends or events. Ironically, this definition places the focus on the hazard rather than on the ‘outcomes’ we care to avoid—such as economic loss or hunger. (O’Brien et al. 2007:75.) This is also called the ‘risk-hazards’ approach. Regardless of what they say their perspective is, when an author talks of vulnerability to a hazard, they are placing risk within the hazard and are taking a risk-hazard perspective. “We can only talk meaningfully about the vulnerability of a specified system to a specified hazard or range of hazards” (Brooks 2003) is the kind of telltale statement of a hazards thinker – whether they acknowledge this or not.

**Internal vs. External sides of Vulnerability:** Internal is the side of vulnerability considered to be endogenous or place based. Introduced by Chambers (1989), it refers to factors within the vulnerable system. External refers to those factors outside of the vulnerable system, typically reflecting geographical boundaries or causal linkages of influence. (See Füssel 2007:158.)

**Biophysical Vulnerability:** Brooks (2003:4) defines physical or biophysical vulnerability as the “physical components associated with the nature of the hazard and its first-order physical impacts and a biological or social component associated with the properties of the affected system that act to amplify or reduce the damage resulting from the first-order impacts.” This reads like a risk-hazards definition. It attempts to graft on a more dynamic social side to the equation but is rooted in a linear causal framing. The biophysical framing explores vulnerability as a measure of ‘outcomes’ rather than as a ‘state’ of the system. Hence, it is measured in mortality, costs, or ecosystem damages. Social vulnerability is then a state and can be seen as one of the causes of biophysical vulnerability. “Biophysical vulnerability is a function of the frequency and severity (or probability of occurrence) of a given type of hazard, while social or inherent vulnerability is not.”

**Antonyms for Vulnerability?** Some analysts characterize ‘vulnerable’ as being on the opposite end of a spectrum from ‘capable’. They use the term ‘capability’ to counter the negativity of the term ‘vulnerability’, which they argue implies people are passive victims incompetent to resist hazards (see Ionescu et al. 2003 for a classic example vulnerability is modeled as a Lotka-Volterra predator-prey relation—with the hazard as predator).<sup>\*</sup> However, vulnerability and capability are distinct, although partly inter-related. ‘Capacities depend on groups or some form of social organization, while vulnerabilities are socially-determined but the characteristic of individuals or households’ (Cannon, Twigg and Rowell n.d.:6-7). So, although they are not opposites, and ‘capable’ is not a positive replacement term for ‘vulnerable’, there is no logical reason that capacities could not be a scalar opposite of vulnerability. Higher capacity is likely to be correlated with reduced vulnerability. Vulnerability measures can include any factor that affects an individual or household risk, among which capacities are certainly one scaled factor. (Cannon, Twigg and Rowell n.d.:6-7; also see Blaikie et al. 1994:9.) Pelling (2003:46) considers resilience to be the ‘reciprocal’ of vulnerability. Adger (2000:349) considers it to be a “loose antonym for vulnerability.”

## Other Important Terms in the Climate-Action Literature

---

<sup>\*</sup> Hewett (1997:28) points out that “While ‘vulnerability’ suggests weakness and defenselessness, studies in this perspective actually challenge a common view of people as merely passive or unwitting victims of disaster. It is as much a question of the protection and active capacities people have, or are permitted, as the hazards they are exposed to and their innate weakness.”

**Risk:** Probability of an event times its consequence is the classic definition of risk. This definition is used in engineering and in insurance calculations. Probability is usually characterized as the likelihood in a given period. Consequence is usually characterized as some negative outcome in dollars or in specific losses of life or assets.

“The idea of ‘risk’ ... embraces exposure to dangers, adverse or undesirable prospects, and the conditions that contribute to danger.” “... Risk is, in the broadest sense, continuously and socially constructed. It promotes an active and adaptive view of the responsibility of human societies.” (Hewett 1979:22.) Hewett’s interpretation is important so far as it explicitly takes a social constructivist view so as to be capable of attributing responsibility for dangerous conditions.

There is a struggle between a narrow, essentially quantitative, technical view of risk and a broad social and cultural one. The narrow view seeks to estimate the probability of a certain measurable (adverse) outcome in a specific system or population.” This is often depicted “...as the only ‘scientific’ or sound approach.” (Hewett 23.) Hewett insists that in matters of public and environmental safety, these narrow definitions are not sufficient. Equity, responsibility, values and expectations must be taken into account. Calculation grids used in quantitative assessments are not sufficient for dangers for people and places in disasters where damages are unique and irreparable. Losses of life, loss of limb, changes in destruction of place, cannot be understood quantitatively. With these issues in mind, Hewett takes a broader vernacular interpretation of risk. He suggests, “A human ecology of risk ... whose purpose is to describe and interpret the conditions that endanger or improve the security of communities (Hewett 1997:24).

Risk is not catastrophe or disaster. It is the anticipation of such (Beck 2009:9). Risk is not uncertainty. Knight (1921—in Beck 2009:18) states, “Uncertainty must be taken in a sense radically distinct from the familiar notion of risk.... It will appear that a measurable uncertainty or a ‘risk’ proper...is so far distinct from an immeasurable one that it is not in effect an uncertainty at all.” Risk is also not danger; risk incorporates the notion of calculation; hence it gives a new weighting to the notion of a danger that people might worry about but do not have a ‘scientific’ assessment (Wilkinson 2010:23).

“Risk is a reflexive notion because it balances benefits against harms and makes the future decidable in the present” (Beck 2009:19). In being so, it has to judge the weight of both benefits and harms – which might accrue to different people at different times and at different scales of social and political organization. It is inherently, in this sense, a political notion.

Leach (2008:3) remarks “...risk, in its strict sense, is only one dimension of incertitude; others include uncertainty, where the range of possible outcomes is known but probabilities cannot be assigned; ambiguity, where incommensurable priorities or notions of harm prevail, and

ignorance, where neither outcome nor likelihoods are known, and the possibility of surprise is ever-present.”

Wilkinson (2010:39) states that risk is “...a numerical expression of both the likelihood of a detrimental outcome resulting from a particular course of action and the magnitude of the adverse consequences that may follow on from this.”

Experts use risk to mean “a calculation of probability.” In popular usage, it is more a synonym for “danger.” “Social theorists present us with a range of interpretive frameworks for debating what is morally and politically at stake when ‘risk’ is used in the language of everyday life, particularly when this is brought to the fore as the signature motif of news reports on the problems of our day.” (Wilkinson 2010:58.)

For the Pressure and Release modelers (Turner et al. 2003:8074), “...risk is explicitly defined as a function of the perturbation, stressor, or stress and the vulnerability of the exposed unit.” This is an attempt to include the hazards and the social system in a single model. But, the PAR model does not include the vulnerability of the biophysical system.

**Hazard:** “Something is a hazard to the extent that it threatens losses we wish to avoid” (Hewett 1997:25). Hazards are not physical agents alone. It is the possibility that the physical event will result in damage. Floods or dry spells that do not affect anyone are not hazards. “Whereas a hazards perspective tends to explain risk and disaster in terms of external agents and their impacts, vulnerability looks to the internal state of a society and what governs that.” (Hewett 1997:27-8.) Brooks (2003:3) defines a hazard as “...physical manifestations of climatic variability or change, such as droughts, floods, storms, episodes of heavy rainfall, long-term changes in the mean values of climatic variables, potential future shifts in climatic regimes and so on. Climate hazards may be defined in terms of absolute values or departures from the mean or variables such as rainfall, temperature, wind speed, or water level, perhaps combined with factors such as the speed of onset, duration, and spatial extent. Hazards are also referred to as climate events.”

**Damage:** “...The empirical evidence of just how, where, and for whom danger is realized in harm.” “Harm done is the unequivocal measure of the protection people did not have, but do require.” (Hewett 1997:21.)

**Adaptation:** “Initiatives and measures to reduce the vulnerability of natural and human systems against actual or expected climate change effects. Various types of adaptation exist, e.g. anticipatory and reactive, private and public, and autonomous and planned. Examples are raising river or coastal dikes, the substitution of more temperature-shock resistant plants for sensitive ones, etc.” (IPCC AR4:Annex 1.)

In 2001 IPCC defined adaptation to climate change as “...adjustment in natural or human systems in response to actual or expected climatic *stimuli* or their effects, which moderates harm or exploits beneficial opportunities” (IPCC 2001:365; and in IPCC 2007:869). Nelson, Adger and Brown (2007:396) define adaptation as “the decision-making process and the set of actions undertaken to maintain the capacity to deal with current or future predicted change.” They elaborate “Adaptation is a process of deliberate change in anticipation of or in reaction to external stimuli and stress. The dominant research tradition on adaptation to environmental change primarily takes an actor centered view, focusing on the agency of social actors to respond to specific environmental stimuli and emphasizing the reduction of vulnerabilities. The resilience approach is systems orientated, takes a more dynamic view, and sees adaptive capacity as a core feature of resilient social-ecological systems.” (Nelson, Adger and Brown 2007:395.) They argue (2007:396) “...that adaptation to environmental change is best formulated as an issue of system resilience....” They state (397) “We define *adaptation* as the decision-making process and the set of actions undertaken to maintain the capacity to deal with future change or perturbations to a social-ecological system without undergoing significant changes in function, structural identity, or feedbacks of that system while maintaining the option to develop. In contrast to adaptation, Nelson, Adger and Brown 2007:398 point out that “the resilience approach is founded on the understanding that the natural state of a system is one of change rather than one of equilibrium.” See also discussion of adaptation under ‘resilience’ as adaptation in a resilience framework.

**Adaptive capacity:** “The whole of capabilities, resources and institutions of a country or region to implement effective adaptation measures.” (IPCC AR4:Annex 1.)

Nelson, Adger and Brown (2007:400) define *adaptive capacity* as “...a way to describe the preconditions necessary for a system to be able to adapt to disturbances. It is represented by the set of available resources and the ability of the system to respond to disturbances and includes the capacity to design and implement effective adaptation strategies to cope with current or future events (13). Resources include economic capital, technology and infrastructure, information, knowledge, institutions, the capacity to learn, and social capital (38, 40, 44, 45). Adaptive capacity also has direct implications for the type and scale of adaptation that is possible for the system to achieve.” Note that this definition then relies largely on how the system boundaries are drawn. It also depends deeply on how system characteristics are specified – that is what theories of social and political economic change are applied to the ‘social’ portion of the ‘system’.

Yohe and Tol (2002:27) characterize vulnerability with respect to adaptive capacity as  $V = F\{E(A);S(A)\}$ .

Where:

V = Vulnerability

E = Exposure

S = Sensitivity

A = Adaptive Capacity = AC{D1, D2...Dn}

D = Determinants listed on previous page

AC = left undefined, but I assume it is = A or adaptive capacity

This equation, but placing V as a function, seems to place risk within the hazard by characterizing E and S as static and only responding to that state (A) as a variable. This discounts, but does not preclude, an analysis of the production of risk in history. They also have a bias toward the proximate: "...read carefully through the determinants of adaptive capacity to recognize that the local manifestations of micro-scale determinants of adaptive capacity are their most critical characteristics" (Yohe and Tol 2002:28).

**Adaptedness:** Nelson, Adger and Brown (2007:400) define *adaptedness* as "a state in which a system is effective in relating with the environment and meets the normative goals of stakeholders."

**Mitigation:** "Technological change and substitution that reduce resource inputs and emissions per unit of output. Although several social, economic and technological policies would produce an emission reduction, with respect to climate change, mitigation means implementing policies to reduce GHG emissions and enhance sinks." (IPCC AR4.) "Mitigation refers to actions that reduce exposure to changes, for example, through regulation, location, or technological shifts" (Nelson, Adger and Brown 2007:397).

**Resilience:** Following Adger (2000:349) "Resilience increases the capacity to cope with stress and is hence a loose antonym for vulnerability" (also see Pelling [2003] who considers resilience to be "the ability of an actor to cope with or adapt to hazard stress"). Adger continues, "...social and ecological systems are themselves linked, in ways which Norgaard (1994) and others have likened to synergistic and coevolutionary relationships. Clearly "...the direct dependence of communities on ecosystems is an influence on their social resilience and ability to cope with shocks, particularly in the context of food security and coping with hazards" (Adger 2000:354). Ecosystem resilience is clearly also linked to human intervention. Some antonyms include 'Sensitivity', defined as the degree to which a system is instantly affected by perturbations (Füssel 2007:158). It should also be noted that many authors use the word 'resilience' colloquially to mean the ability to bounce back (see, Douglas 1985:54). Nelson, Adger and Brown (2007:396) define it as "the amount of change a system can undergo and still retain the same function and structure while maintaining options to develop." In contrast to adaptation, Nelson, Adger and Brown 2007:398 point out that "the resilience approach is founded on the understanding that the natural state of a system is one of change rather than one of equilibrium." They continue (2007:399) "The resilience framework has developed to incorporate ideas of complex systems and in so doing emphasizes the functioning of the social-ecological system as a whole. The focus is on the relationships between the system

components, not on the functioning of individual components in isolation. Rather, it is concerned with context, feedbacks, and connectedness of system components. This is a fundamental difference with the adaptation to environmental change literature, which is focused on actors.” They continue “Actor-based analysis looks at the process of negotiation and decisions, and the systems-based analysis examines the implications of these processes on the rest of the system. The systems perspective also contains a temporal element that is important to the concept of adaptation. It considers adaptation not in light of specific activities but rather in how activities feedback, either positively or negatively, into the system as a whole through time.” They reiterate later (2007:402) that “standard adaptation approaches foster adaptation that will lead to a state in which the socioecological system deals effectively with perceived risks. Adaptation in a resilience framework, by contrast, promotes managing the capacity of the system to cope with future change.” They later add (2007:412): “A key contribution of resilience derives from the core understanding that change is a fundamental aspect of any system.”

There are ecological systems theory roots to the term resilience as it is often used in the analysis of human-climate relations. Hence, while the above definitions tell us what resilience is – ‘the capacity to cope’ – they do not tell us how it is modeled or explained. [Develop this definition during the section on ‘resilience’.]

**Sensitivity:** The degree to which a system is instantly affected by perturbations (Füssel 2007:158).

**Social Resilience:** Adger (2000:347) “...defines social resilience as the ability of groups or communities to cope with external stresses and disturbances as a result of social, political and environmental change.” Adger (2000:349) states “...it is important to note that, because of its institutional context, social resilience is defined at the community level rather than being a phenomenon pertaining to individuals. Hence it is related to the social capital of societies and communities.” His observation here, however, has an implicit set of assumptions about how societies work – placing institutional relations within ‘social capital’ and viewing the individual as being observable outside of ‘community’. I would argue that the individual is always embedded – within political-economic and social relations (see Watts and Bohle 1992). ‘Social capital’ is too narrow a view of institutional location.

**Ecological Resilience:** Adger (2000:347) defines ecological resilience as “...a characteristic of ecosystems to maintain themselves in the face of disturbance.” “For natural ecosystems, vulnerability can occur when individuals or communities of species are stressed, and where thresholds of potentially irreversible changes are experienced through environmental changes.” Ecological resilience specifies the ecosystem as the value at risk. It is a system-level concept. It is not about the stability of individual species, but of the ecosystem as a whole. Ecological resilience combines the shock a system can absorb prior to changing and the rate of recovery

after a change (Adger 2000:349). The abilities to absorb shock and to recover have been related to ecosystem diversity – however, this relation is not at all clear and remains controversial. These two aspects are also taken to be definitions by different scholars. Some define resilience as the shock that can be absorbed without collapse and others define it as the rate of recovery after a shock.

**Robustness:** Leach (2008:3) distinguishes between resilience, which is the ability to respond to shocks, and robustness, which is the ability to respond to stress. She argues that “the STEPS pathways approach distinguishes four possible kinds of strategy to deal with change: control to address short term shocks (stability) or long-term stresses (durability), and response to shocks (resilience) or to stresses (robustness).”

**Coping Strategies:** “Coping strategies are actions taken by households when faced with extreme food insecurity which might be caused by diverse factors, from climatic extremes to wars. They are, in effect, short-term adjustments and adaptations to extreme events, are usually involuntary and almost invariably lead to a different subsequent state of vulnerability to future famine situations.” (Adger 2000: 457.)

**Resistance:** Pelling (2003:48) defines resistance as “...the ability of an actor to cope with or adapt to hazard stress.” He considers it to be a function of economic, psychological and physical health and of maintenance of systems and to be a reflection of the capacity of the individual or group to withstand the stresses associated with hazards. For Pelling (2003:47) vulnerability consists of exposure, resistance and resilience, where exposure is hazard stress, resistance is the ability to withstand that stress, and resilience is the ability to cope with, adapt to or recover after damage. In the urban context he sees insurance as the key option for enhancing resilience by spreading risk across society and over time.

**Impact:** This is a term coming from the ‘hazards’ literature that implies that a given event can be associated with an outcome that it caused. A storm causes damage. Those damages are the ‘impacts’ of the storm’ in the hazards literature. But, beware of the use of this term. It is often used by vulnerability scholars who, by dint of using it, are attributing causality to the hazard. It is just a bad habit to fall back on the definitions they grew up with and which seem intuitively clear – despite that they are introducing ambiguity.

**Criticality:** Criticality ‘refers to situations in which the extent or rate of environmental degradation precludes the continuation of current use systems or levels of human well being, given feasible adaptations and societal capabilities to respond’ (Kasperson *et al.*, 1995: 25 in Adger 2000:348). Criticality is therefore a state of a resource system or geographical place or region’s ecosystem that combines ecological and social conditions. It is that point at which social response can no longer stave off ecological decline or collapse. Criticality is ecological, hence, people may not be vulnerable in the face of ecosystem criticality or collapse. Hence, this

concept allows for a separate analysis of social vulnerability but provides for a social dimension to ecological vulnerability. (Adger 2000:349.)

**Thresholds:** Nelson, Adger and Brown (2007:401-2) argue that “thresholds represent the boundaries around a system state, which if crossed represent the transition into another system state.” They see thresholds as unpredictable and unforeseeable, often being perceived only after they have been crossed, shifting the system into a new state.

**Policy Windows:** Moments, such as the months after a disaster strikes, where public interest may create movements to push particular protective policies through.

**Tipping Points:** *To be developed.*

**Other useful terms:** Exposure to stress, sensitivity and adaptive capacity are common elements of all models of vulnerability (Adger 2006:269). In the typical definitions in the literature, *stress* to which a system is *exposed* might include a continuous or slow-onset hazard (a stress or stressor) or a discrete event (a perturbation) (Füssel 2007:157). Here, ‘exposure is the nature and degree to which a system experiences environmental or socio-political stress. The characteristics of these stresses include their magnitude, frequency, duration and areal extent’ (Adger 2006:270—citing Burton et al. 1993). The factors that shape a system’s likelihood to incur damages are its *sensitivity* and *adaptive capacity*. *Sensitivity* describes the degree to which a system is changed following a perturbation or stress (Adger 2006:170). *Adaptive capacity* is its ability to adjust in ways that reduce sensitivity, increase resilience, or avoid damage—is also called the ability to *cope*. *Resilience* is also a common term in the vulnerability literature, referring ‘to the magnitude of disturbance that can be absorbed before a system changes to a radically different state as well as the capacity to self-organize and the capacity for adaptation to emerging circumstances’ (Adger 2006:269). These terms are used differently in different approaches to vulnerability analysis.

**Emancipation:** To be developed.

**Enfranchisement:** Adding to Amartya Sen’s analysis of ‘entitlements’, Appadurai (1984:481) defines enfranchisement as “the degree to which an individual or group can legitimately participate in the decisions of a given society *about* entitlement.” He goes on to say “Famines raise questions about the relationship between entitlement and enfranchisement in any society, at any moment in history.” The inextricable link between famine and emancipation is clear. When and why does any group within society lose their ability to influence society toward their own protection? What is the moral basis of subsistence relations in times of famine?

### **Works Cited (not complete)**

Appadurai, Arjun. 1984. “How Moral Is South Asia’s Economy – A Review Article. *Journal of*

- Asian Studies.*" Vol. XLIII. No. 3.
- Brooks, N.2003. Vulnerability, Risk, and Adaptation: A Conceptual Framework, Working Paper. Tyndall Centre for Climate Change Research. Pp. 16.  
[\[http://www.nickbrooks.org/publications/TynWP38.pdf\]](http://www.nickbrooks.org/publications/TynWP38.pdf)
- Hewitt, Kenneth. 1997. *Regions of Risk: A Geographical Introduction to Disasters*. London: Longman. Ch. 1, pp. 21-39, "Risk and Damaging Events."
- Nelson, D.R., W.N. Adger and K. Brown. 2007. "Adaptation to Environmental Change: Contributions of a Resilience Framework," *Annual Review of Environment and Resources*, Vol. 32, Pp. 395-419.  
[\[http://www.stanford.edu/~feged/amazonasmalaria/Nelson,%20Adger,%20Brown%20Adaptation%20to%20Enviro%20Change'%20\(2007\).pdf\]](http://www.stanford.edu/~feged/amazonasmalaria/Nelson,%20Adger,%20Brown%20Adaptation%20to%20Enviro%20Change'%20(2007).pdf) [Goes well with Leach et al 2008]
- Yohe, Gary and Richard S.J. Tol. 2002. "Indicators for Social and Economic Coping Capacity—Moving Toward a Working Definition of Adaptive Capacity." *Global Environmental Change*, Vol.12, pp. 25-40.

## [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 Canvas, 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 – 1<sup>st</sup> 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. ([oasis@american.edu](mailto: oasis@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, Canvas, 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](mailto:asac@american.edu), or drop by MGC 243. For more information, visit AU's [Disability Accommodations web page](#).

## **Recommended Additional Readings**

### <sup>1</sup> Readings on Causes of Climate Change

- Moon, Katie and Deborah Blackman. 2014. "A Guide to Understanding Social Science Research for Natural Scientists," *Conservation Biology*, Volume 28, No. 5, 1167–1177. DOI: 10.1111/cobi.12326. Pp. 10
- Shove, Elizabeth. 2010. "Social theory and climate change: Questions often, sometimes and not yet asked," *Theory, Culture & Society*, Vol. 27(2–3): 277-288. Pp. 11

### <sup>2</sup> Readings on Social Cause in History

- Moon, Katie and Deborah Blackman. 2014. "A Guide to Understanding Social Science Research for Natural Scientists," *Conservation Biology*, Volume 28, No. 5, 1167–1177. DOI: 10.1111/cobi.12326. Pp. 10

- 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. Pp. 43
- 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](https://liverman.faculty.arizona.edu/sites/liverman.faculty.arizona.edu/files/2018-06/Liverman%202015%20Reading%20climate%20as%20political%20ecology_1.pdf)
- Lahsen, Myanna, Gabriela de Azevedo Couto & Irene Lorenzoni. 2019. When climate change is not blamed: the politics of disaster attribution in international perspective. *Climatic Change*. First online 27 December. <https://link.springer.com/article/10.1007/s10584-019-02642-z>. Pp. 21
- Smith, N. 2006. There is no such thing as a natural disaster on SSRC's website on *Understanding Katrina*: <http://understandingkatrina.ssrc.org/Smith/>. [or <https://items.ssrc.org/understanding-katrina/theres-no-such-thing-as-a-natural-disaster/>] Pp. 4

### <sup>3</sup> Suggested Additional Readings on Vulnerability and its Definitions

- Turner, Matthew D. 2016. Climate vulnerability as a relational concept. *Geoforum*, 68, 29-38. Pp. 9
- O'Brien, Karen, 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. 15
- Thomas, Kimberley, R. Dean Hardy, Heather Lazrus, Michael Mende, Ben Orlove, Isabel Rivera-Collazo, J. Timmons Roberts, Marcy Rockman, Benjamin P. Warner, Robert Winthrop. 2018. Explaining differential vulnerability to climate change: A social science review. *WIREs Climate Change* 10:e565, 1-18. Open Access: <https://onlinelibrary.wiley.com/doi/epdf/10.1002/wcc.565> Pp. 18
- Chambers, Robert. 1989. Vulnerability, coping and policy. In: R. Chambers (ed). *Vulnerability: How the poor cope*. *IDS Bulletin*, 20 (2), 33-40. Pp. 7
- Swift, Jeremy. 1989. Why are rural people vulnerable to famine? *IDS Bulletin*, 20 (2), 8-15. Pp. 8
- 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](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](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
- Ribot, Jesse. 2013. "Vulnerability does not just fall from the Sky: Toward Multi-scale Pro-poor Climate Policy" in M.R. Redclift & M. Grasso, eds., *Handbook on Climate Change and Human Security*. Cheltenham: Edward Elgar. Pp. 164-199. Pp. 34
- Wilkinson, Iain. 2010. *Vulnerability in everyday life*. London: Routledge.
  - Sociology in a World of Risk, pp. 1-13. Pp. 13
  - The History of Risk, Pp. 14-35. Pp. 21
  - Risk in Social Theory, Pp. 36-58. Pp. 22
- 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

<sup>4</sup> 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.

- Bernstein, Peter L. 1996. *Against the Gods: The Remarkable Story of Risk*. New York: Wiley.
- 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. Especially pertinent for our purposes is "Natural Risk." Ch. 5, pp. 53-64. Pp. 11.
- 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) *WorldRiskReportWorld Risk Report 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.

##### <sup>5</sup> Readings Related to Placing Vulnerability in Geography

- Liverman, Diana. 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](https://liverman.faculty.arizona.edu/sites/liverman.faculty.arizona.edu/files/2018-06/Liverman%202015%20Reading%20climate%20as%20political%20ecology_1.pdf) Pp. 16

##### <sup>6</sup> 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.
- [Alex de Waal](#). 1990. A Re-assessment of Entitlement Theory in the Light of the Recent Famines in Africa. *Development and Change*.
- 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.
- 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.
- 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
- Appadurai, A. 1984. How Moral Is South Asia's economy – A review article. *Journal of Asian Studies*, 28 (3), 481-497. Pp. 17
- Lappé, 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.

#### <sup>7</sup> Suggested Additional Readings on Entitlements and Vulnerability

- 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.
- [Skip] Nozick, R. 1974, "Chapter 7: Distributive Justice" in *Anarchy, State and Utopia* Blackwell Publishers, Oxford, UK, pp. 149-231. Pp. 72
- Hodgson, L.P. 2010, "Kant on property rights and the state", *Kantian Review*, vol. 15, no. 1, pp. 57-87. Pp. 30
- 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/nj-lite?chapter=&page=4>.
- 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.
- Lappe, Frances Moore. 2013. "Beyond the scarcity scare: reframing the discourse of hunger with an eco-mind," *The Journal of Peasant Studies*, Volume 40(1): 219-238, <https://www.tandfonline.com/doi/full/10.1080/03066150.2012.708859?scroll=top&needAccess=true>. Pp. 19
- Osmani, S. R. 1993. The entitlement approach to famine: An assessment (No. 107). UNU World Institute for Development Economics Research. See: <https://www.wider.unu.edu/sites/default/files/WP107.pdf>

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

<sup>8</sup> 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.

<sup>9</sup> Recommended readings on property and access

- Lund, Christian. 2020. *Nine-Tenths of the Law: Enduring Dispossession in Indonesia*. New Haven: Yale University Press. Ch. 1, "Possession is Nine-tenths of the Law." Pp. 1-25. Pp. 25
- Locke, J. 1678, "Chapter 10: Of Property" in *Two Treatises of Government*, pp. 77-86. Pp. 9
- Cooper, N. 1977, "Justice and historical entitlement," *Canadian Journal of Philosophy*, vol. 7, no. 4, pp. 799-803. Pp. 4 [If we use Cooper and Nnajofofor, we need a Nozack Piece. A piece by Rawls would also be good. Then we can see the 'capabilities' approach in context. So, Locke, Nozack, Cooper, Nnajofofor, then Sen will make sense. Ribot and Peluso and then Lund could follow with Lund and Sikor in between.]
- Nnajofofor, Osita Gregory & Chinedu Stephen Ifeakor. 2016. "Robert Nozick's Entitlement Theory of Justice: A Critique," *OGIRISI: A New Journal of African Studies* Vol. 12:170-182. <http://dx.doi.org/10.4314/og.v12i1.8>. See: <https://www.ajol.info/index.php/og/article/view/141255#:~:text=Entitlement%20theory%20of%20justice%20involves,and%20lack%20of%20practical%20relevance>. Pp. 12

<sup>10</sup> 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

<sup>11</sup> Recommended Additional Readings on Vulnerability and Environment

- 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*. Pp. 414-30. Pp. 16
- Ramprasad, Vijay, A. Joglekar, and F. Fleischman. 2020. Plantations and pastoralists: afforestation activities make pastoralists in the Indian Himalaya vulnerable. *Ecology and Society* 25(4):1. <https://doi.org/10.5751/ES-11810-250401>. Pp. 11
  - Read this along with Vijay's sample thesis proposal (good pairing)
- Wisner, B., P.M. Blaikie and T. Cannon. 2004. *At risk: Natural hazards, people's vulnerability and disasters*. 2<sup>nd</sup> Edition. London: Routledge. Pp. 34
  - Ch.2: Disaster Pressure and Release Model. Pp. 49-86.
- Leach, Melissa, Robin Mearns and Ian Scoones. 1999. Environmental Entitlements: Dynamics and institutions in community-based natural resource management. *World Development*, 27(2), 225-247. Pp. 23
- Ribot, Jesse C. 1995. "The Causal Structure of Vulnerability: Its Application to Climate Impact Analysis." *GeoJournal*, Vol. 35, No. 2, pp. 119-122.
- Resurrección, Bernadette P. 2019. "Water Insecurity in Disaster and Climate Change Contexts: A Feminist Political Ecology View," Ch. 3, pp. 51-67 in Lisa Reyes Mason and Jonathan Rigg (eds.) *People and Climate Change: Vulnerability, Adaptation and Social Justice*. Oxford: Oxford University Press. Pp. 16
- 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.

<sup>12</sup> 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 Counties*. 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.]

### <sup>13</sup> On Environment and Structural Violence and on Structure-Agency Debates

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? Think about what the implications are of emphasizing (or ignoring) one frame or scale, the proximate over the distal or structural, 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.

- Gosh, Jayati. 2010. "The Unnatural Coupling: Food and Global Finance," *Journal of Agrarian Change*, Vol. 10 No. 1, pp. 72–86. Pp. 14
- Edelman, Marc, Tony Weis, Amita Baviskar, Saturnino M. Borras Jr, Eric Holt-Giménez, Deniz Kandiyoti & Wendy Wolford. 2014. "Introduction: critical perspectives on food sovereignty," *The Journal of Peasant Studies* Vol. 41, No. 6, 911–931. Pp. 20
  - How does 'food sovereignty' as a concept help us to understand the origins and potential solutions for climate-related vulnerabilities?
- Farmer, P. 2004. *An Anthropology of Structural Violence*. *Current Anthropology*, 45(3), 305-25. Pp. 20
- McLaughlin, P., and T. Dietz. (2007). Structure, agency and environment: Toward an integrated perspective on vulnerability. *Global Environmental Change*, 39(4), 99-111. Pp. 13
- Rogers, Dennis and Bruce O'Neill. 2015. Infrastructural violence: Introduction to the special issue. *Ethnography* 3(4) 401–412. Pp. 11
- 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
  - Read wrong piece – re-read before

- 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.]
- 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
- 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
- Beck, U. 2010. Climate for change, or how to create a green modernity? *Theory, Culture & Society*, 27(2-3), 254-266, Pp. 12
- 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 Agropastoral regions of northern Tanzania: A topological approach. *AREA*. Forthcoming. Pages =7
- 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
  - Good to read a Latour piece before this one
- Hulme, M. 2010. Cosmopolitan climates: Hybridity, foresight and meaning. *Theory, Culture & Society*, 27(2-3), 267-276. Pp. 9
- 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

#### <sup>14</sup> Recommended Readings on Covid19

- Achiume, E. Tendaye, Thomas Gammeltoft-Hansen and Thomas Spijkerboer. 2020. "Introduction to the Symposium on COVID-19, Global Mobility and International Law" 114 *AJIL Unbound* 312 (2020).
- Plumer, Brad and Nadja Popovich. 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>.~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](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

<sup>15</sup> 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
- Watts, Michael J. and Hans Bohle. 1993. The space of vulnerability: The causal structure of hunger and famine. *Progress in Human Geography*, 17(1), 43-68. Pp. 26
- Hickey, Sam and Andries du Toit. 2007. Adverse incorporation, social exclusion and chronic poverty. Institute for Development Policy and Management, School of Environment and Development at the University of Manchester Chronic Poverty Research Centre (CPRC) Working Paper 81. Pp. 31
- 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, Robert, Avner Greif, Margaret Levi, Jean-Laurent Rosenthal, Barry R. Weingast. 1998. Analytic Narratives Intro. Princeton: Princeton University Press. Introduction, pp. 3-23. Pp. 21
- Sayer, Andrew. 1992. *Method in Social Science: A Realist Approach*, Second Edition. New York: Routledge.
- Brady, Henry E. and David Collier (eds.). 2004. *Rethinking Social Inquiry: Diverse Tools, Shared Standards*. Lanham: Rowman and Littlefield.
- Flyvbjerg, Bent, Todd Landman and Sanford Schram. 2012. *Real Social Science: Applied Phronesis*. Cambridge: Cambridge University Press.
- Becker, Howard S. 2017. *Evidence*. Chicago: University of Chicago Press.
- Ryan, Alan. 1973. *The Philosophy of Sociail Explanation*. Oxford: Oxford University Press.
- Agar, Michael. H. 1980. *The Professional Stranger: An Informal Introduction to Ethnography*. New York: Academic Press.

<sup>16</sup> 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.

<sup>17</sup> Recommended Readings on Adaptation:

- Garcia, Alicea, Petra Tschakert & Nana Afia Karikari. 2020. “‘Less able’: how gendered subjectivities warp climate change adaptation in Ghana’s Central Region,” *Gender, Place & Culture*, DOI:

---

10.1080/0966369X.2020.1786017. To link to this article:

<https://doi.org/10.1080/0966369X.2020.1786017>. 27(11): 1602-1627. Pp. 25

- 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.]
- Watts, Michael 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.]
- 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
- 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
- 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>
- 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

<sup>18</sup> 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.]

<sup>19</sup> 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](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?]
  - Pelling, M. 2011. *Adaptation to Climate Change: From Resilience to Transformation*. Abingdon: Routledge. Framework and Theory, pp. 1-18.
  - O'Brien, Karen. 2012. "Global environmental change II: From adaptation to deliberate transformation" *Progress in Human Geography* Vol. 36, No. 5, Pp. 667–676.
  - 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.]
  - Nelson, D.R., W.N. Adger and K. Brown. 2007. "Adaptation to Environmental Change: Contributions of a Resilience Framework," *Annual Review of Environment and Resources*, Vol. 32, Pp. 395-419. Pp. 24

---

[\[http://www.stanford.edu/~feged/amazonasmalaria/Nelson,%20Adger,%20Brown%20'Adaptation%20to%20Enviro%20Change'%20\(2007\).pdf\]](http://www.stanford.edu/~feged/amazonasmalaria/Nelson,%20Adger,%20Brown%20'Adaptation%20to%20Enviro%20Change'%20(2007).pdf) [Goes well with Leach et al 2008 – above.]

- Manyena, Siambabala Bernard. 2006. “The concept of resilience revisited” *Disasters* Vol. 30, No. 4. Pp 433–450. Pp. 17
- Redman, C. L. and A. P. Kinzig. 2003. Resilience of past landscapes: resilience theory, society, and the *longue durée*. *Conservation Ecology* 7(1): 14. [online] URL: <http://www.consecol.org/vol7/iss1/art14/> Pp. 14
- Turner, B.L. 2010. “Vulnerability and Resilience: Coalescing or Paralleling Approaches for Sustainability Science?” *Global Environmental Change* Vol. 20, No. 4, 570-576. Pp. 6
- Adger, W.N., 2000. Social and ecological resilience: Are they related? *Progress in Human Geography* 24 (3), 347–364.
- Berkes, F., Folke, C. (Eds.), 1998. *Linking Social and Ecological Systems: Management Practices and Social Mechanisms for Building Resilience*. Cambridge University Press, Cambridge.
- Walker, B., Salt, D., 2006. *Resilience Thinking: Sustaining Ecosystems and People in a Changing World*. Island Press, Washington, D.C.
- Tompkins, E.L., Adger, W.N. (2004) Does Adaptive Management of Natural Resources Enhance Resilience to Climate Change? *Ecology & Society* 9, 1-1.
- Folke, C., Carpenter, S., Elmqvist, T., Gunderson, L., Holling, C.S., Walker, B. (2002) Resilience and Sustainable Development: Building Adaptive Capacity in a World of Transformations. *AMBIO: A Journal of the Human Environment* 31, 437-440.
- Folke, C., Colding, J., Berkes, F., (2003) Building resilience for adaptive capacity in social–ecological systems., in: Berkes, F., Colding, J., Folke, C. (Eds.), *Navigating Social–Ecological Systems: Building Resilience for Complexity and Change*. Cambridge University Press, Cambridge, pp. 352-387.
- Duarte, Mafalda, Rachel Nadelman, Andrew Peter Norton, Donald Nelson, and Johanna Wolf. 2007. “Adapting to Climate Change: Understanding the Social Dimensions of Vulnerability and Resilience.” *Environment Matters*, June-July, pp. 24-27.[Used last year, Fairly useless—could eliminate]
- Kasperson, Roger and Kristin Dow. 2005. ‘Vulnerable People and Places’ Ch. 6 in Rashid Hassan and Robert Scholes (eds) *Millennium Ecosystem Assessment: Current State & Trends Assessment*. New York: UN. Available at: <http://www.maweb.org/documents/document.275.aspx.pdf>
- Bottrell D (2009) Understanding ‘marginal’ perspectives: towards a social theory of resilience. *Qual Soc Work* 8: 321–339. [Psychological scale of relational dependencies – argues for resource needs.]
- Calderón-Contreras, Rafael and Carole Sandrine White. 2019. “Access as the Means for Understanding Social-Ecological Resilience: Bridging Analytical Frameworks,” *Society & Natural Resources*. Published online: 29 April 2019. Pp. 19
- Sendzimir, J., C. P. Reij, and P. Magnuszewski. 2011. Rebuilding resilience in the Sahel: Regreening in the Maradi and Zinder regions of Niger. *Ecology and Society* 16(3): 1. Pp. 29. [Interesting for Sahel case study]
- Hesse, C., S. Anderson, L. Cotula, J. Skinner and C. Toulmin. 2013. Building climate resilience in the Sahel. Paper presented to the DFID Consultation workshop on Building Resilience in the Sahel and planned Building Resilience and Adaptation to Climate Extremes and Disasters (BRACED) programme - 17th July 2013. Read Executive Summary & Background, “Understanding climate resilience in a Sahelian context”, pp. 1-17. Pp. 17 [Easy to find online. Please Add link]
- McEvoy, D., H. Funfgeld & K. Bosomworth. 2013. Resilience and climate change adaptation: The importance of framing. *Planning Practice & Research*, 28(3), 280-293. Pp. 13

<sup>20</sup> 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.]
- Orlove, Ben, 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
- 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].
- Castree, N. 2014. The Anthropocene and Geography I: The back story. *Geography Compass*, 8(7), 436-449. Pp. 13
- Ferguson, James. 2012. Structures of responsibility. *Ethnography* 13(4), 558-562. Total = 5 pages.
- Schwartz, Scott W. 2019. "Measuring Vulnerability and Deferring Responsibility: Quantifying the Anthropocene," *Theory, Culture and Society* 36(4):73-93. Pp. 20
- Giddens, Anthony. 1999. Risk and Responsibility. *The Modern Law Review* 62(1):1-10. Pp. 10
- de Waal, Alex. 1997. *Famine crimes: Politics and the disaster relief industry in Africa*. Oxford: James Currey. Pp. 25
  - Introduction. Pp. 1-6
  - Ch 1: "Rights and Entitlements: The Conquest of Famine in South Asia," 7-25. Pp. 19

#### <sup>21</sup> Readings on Climate Justice

- 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.
- Reyes Mason, Lisa and Jonathan Rigg. 2019. "Climate Change, Social Justice: Making the Case for Community Inclusion," Ch. 1, pp. 3-19 in Lisa Reyes Mason and Jonathan Rigg (eds.) *People and Climate Change: Vulnerability, Adaptation and Social Justice*. Oxford: Oxford University Press. Pp. 16
- 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>
- Borrás, Saturnino M. Jr. & Jennifer C. Franco. 2018. "The challenge of locating land-based climate change mitigation and adaptation politics within a social justice perspective: towards an idea of agrarian climate justice," *Third World Quarterly*, 39:7, 1308-1325, DOI: 10.1080/01436597.2018.1460592. To link to this article: <https://doi.org/10.1080/01436597.2018.1460592>. Pp. 17
- 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
- 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.
- Chhotray, V. 2014. "Disaster Relief and the Indian State: Lessons for Just Citizenship," *Geoforum*. Pp. 9

#### <sup>22</sup> Suggested readings related to Social Contracts

- 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. 25
- 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

<sup>23</sup> Suggested additional readings on Migration

- 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>.
- Biermann, Frank, and Ingrid Boas. 2007. Preparing for a Warmer World. Towards a Global Governance System. Amsterdam: The Global Governance Project, Global Governance Working Paper, No. 33, pp. 44. See: <http://www.environmentmagazine.org/Archives/Back%20Issues/November-December%202008/Biermann-Boas-full.html>.
- Brown, Oli. 2008. *Migration and Climate Change*. In: International Organization for Migration (IOM): Research Series, No.31, Geneva: IOM, pp. 64.
- Vigil, S. « Migrations environnementales ? Ramener le politique au cœur du débat », *Cités* 2016/4 (N° 68), p. 61-76. Pp. 15
- Warner, Koko, Tamer Afifi, Olivia Dun, Marc Stal, and Sophia Schmidl. 2008. *Human Security, Climate Change, and Environmentally Induced Migration*. Bonn: United Nations University- Institute for Environment and Human Security, pp. 69.
- Cutter, Susan L., Boruff, Bryan J., Shirley, Lynn W. 2003. "Social Vulnerability to Environmental Hazards." *Social Science Quarterly*, Vol. 84, No. 2, pp. 242-261
- Black, Richard. 2006. "Moving backwards? Migration in Sub-Saharan Africa," in Barbara Marshall, ed. *The Politics of Migration: A Survey*. London: Routledge, pp. 112-129.
- 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).

**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](#).

<sup>24</sup> 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.

<sup>25</sup> On Climate and Democracy

- Fraser, N. 2013. A triple movement? Parsing the politics of crisis after Polanyi. *New Left Review*, 81, 119-32. Pp. 13
- Swyngedouw, Erik. 2005. Governance innovation and the citizen: The Janus face of governance-beyond-the-state. *Urban Studies*, 42 (11), 1991–2006. Pp. 15
- Ribot, Jesse. 2019. "Social Causality of our Common Climate Crisis: Toward a Sociodicy for the Anthropocene," Ch. 2, pp. 34-53, in Tobias Haller, Thomas Brey, Tine De Moor, Christian Rohr and Heinzpeter Znoj (eds.) *Commons in a Glocal World: Global Connections and Local Responses*. London: Routledge. Pp. 19
- 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.
- Claeys, Priscilla & Deborah Delgado Pugley. 2017. "Peasant and indigenous transnational social movements engaging with climate justice," *Canadian Journal of Development Studies*, 38(3): 325-340, DOI: 10.1080/02255189.2016.1235018. To link to this article: <http://dx.doi.org/10.1080/02255189.2016.1235018>. Pp. 15
- Valdivieso, Patricio and Krister P. Andersson. 2017. "Local Politics of Environmental Disaster Risk Management: Institutional Analysis and Lessons from Chile," *Journal of Environment & Development* 2017, Vol. 26(1): 51–81. Pp. 30 [Could have some good material on local democracy.]