Human Impacts of Climate Change in Mongolia, Session 2

Oct. 2, 2021

ACMS Online Field School

Plan for today

- Touching base on midweek activities
  - Discussion of climate change in Mongolia
  - Film, “The Anthropologist” (Susie Crate)
- My research
- Other social science research examples
- Preparing to review herder interviews

Discussion: major concerns and questions re: human impacts of climate change in Mongolia—class brainstorm

- Heavy rain and flooding
- Dust storms
- More *dzud*
- Glacier melt
- Summer heat
- Increasing wildfires (frequency and severity)
- Disruptions of seasons (timing and characteristics)

Goat deaths from dust storm in Eastern Mongolia, May 2008

“The Anthropologist”

- Take-aways from the film re: anthropology?
- Reactions to Susie and Katie’s travels and fieldwork as portrayed in the film?
- Other responses?

Our article #2 posted for today…

anthropology NEWS

AMERICAN ANTHROPOLOGICAL ASSOCIATION

Advancing Knowledge, Solving Human Problems

Storying Climate Change

Susie Crate
April 21, 2017

Local testimonies build understandings of global climate change and galvanize meaningful action.

Source: Susie Crate's Home Page (gmu.edu)

Annika's Primary Research

Politics of Responsibility in an Increasingly Hazardous Climate: Herding in Post-Socialist Mongolia

Climatic / environmental risk

Rural livelihoods

Development

Politics of responsibility re: *dzud*

Legacies of socialism reinterpreted

(See Article #6 posted for today)

Funding Sources: Fulbright-Hays, American Center for Mongolian Studies, American Philosophical Society

Dzud / Mongolian Winter Disasters

Unusually high winter livestock die off caused by snow, ice, poor pasture, or other conditions

- White *dzud*: deep snow covers pasture
- Icy or iron *dzud*: hard ice covers pasture
- Black *dzud*: poor pasture, no snow, cold
- Drought *dzud*: drought in summer is main cause
- Also cold *dzud*, "hoofed *dzud*," etc.
  - [Fernandez-Gimenez, Batbuyan, and Batkhishig, 2012, Lessons from the Dzud/Зудны Сургамж: Final_CSU_DzudBook.pdf (colostate.edu)]

Taylor Weidman/The Vanishing Cultures Project, wodumedia.com

How climate change can increase dzud:

Irregular summer precipitation, droughts **Hotter summers**	→	**Animals thin, poorly prepared for winter shocks**
	→	**Insufficient hay for winter**
	→	**Grass short, easily covered by snow**
	→	**Winter pasture scarce (more black dzud)**
Warmer winters	→	**More snow melting and refreezing (more iron dzud)**
More winter snowfall		**More white dzud**

Summer 2008: “Scoping” research

Herders’ strategies for reducing risk and coping with dzud

Rapid research Methods:

- Interviews with gov., development workers and herders
- Focus groups of herders
- Survey of herders

Evolving research focus: Critiquing "Lazy herder discourses" in *Dzud* Aftermath

Herders…

- Knew a *dzud* was coming;
- Didn't do anything to prepare;
- Were spoiled by socialism;
- Always expect someone to help them
- Are "lazy" and "irresponsible"

"Herders have a mentality to wait for someone to come help them. We need to change this mentality and support them to take initiative. We want them to start thinking in terms of what they can do for themselves."

Director of the Strategic Planning Department,
Mongolian Ministry of Food and Agriculture, 2011

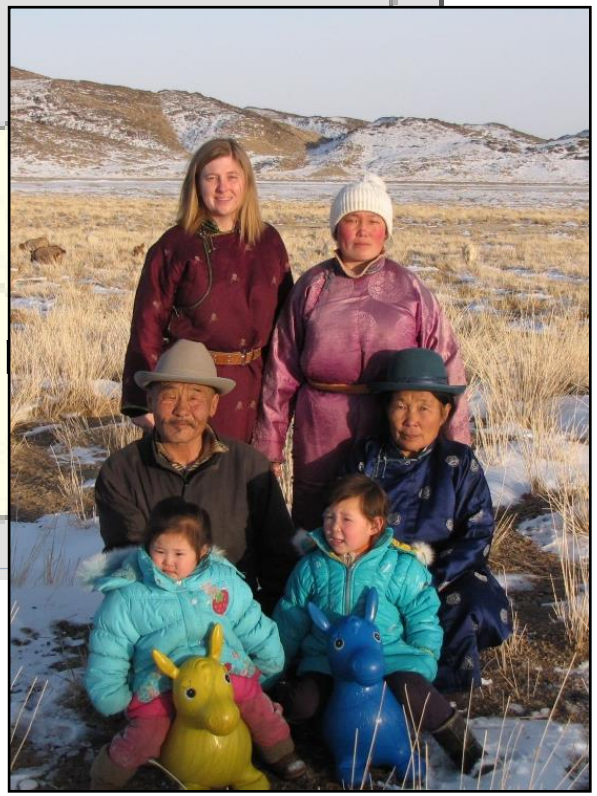
Discourse/Narrative --> Policy: The Privatization of Risk

Livestock insurance advertisements…

Considering climate justice principles, what aid should be free?

2010-2011: Longer-term “ethnographic” research

Local culture; herders’ everyday lives and work; changing ideas about risk and responsibility in relation to dzud

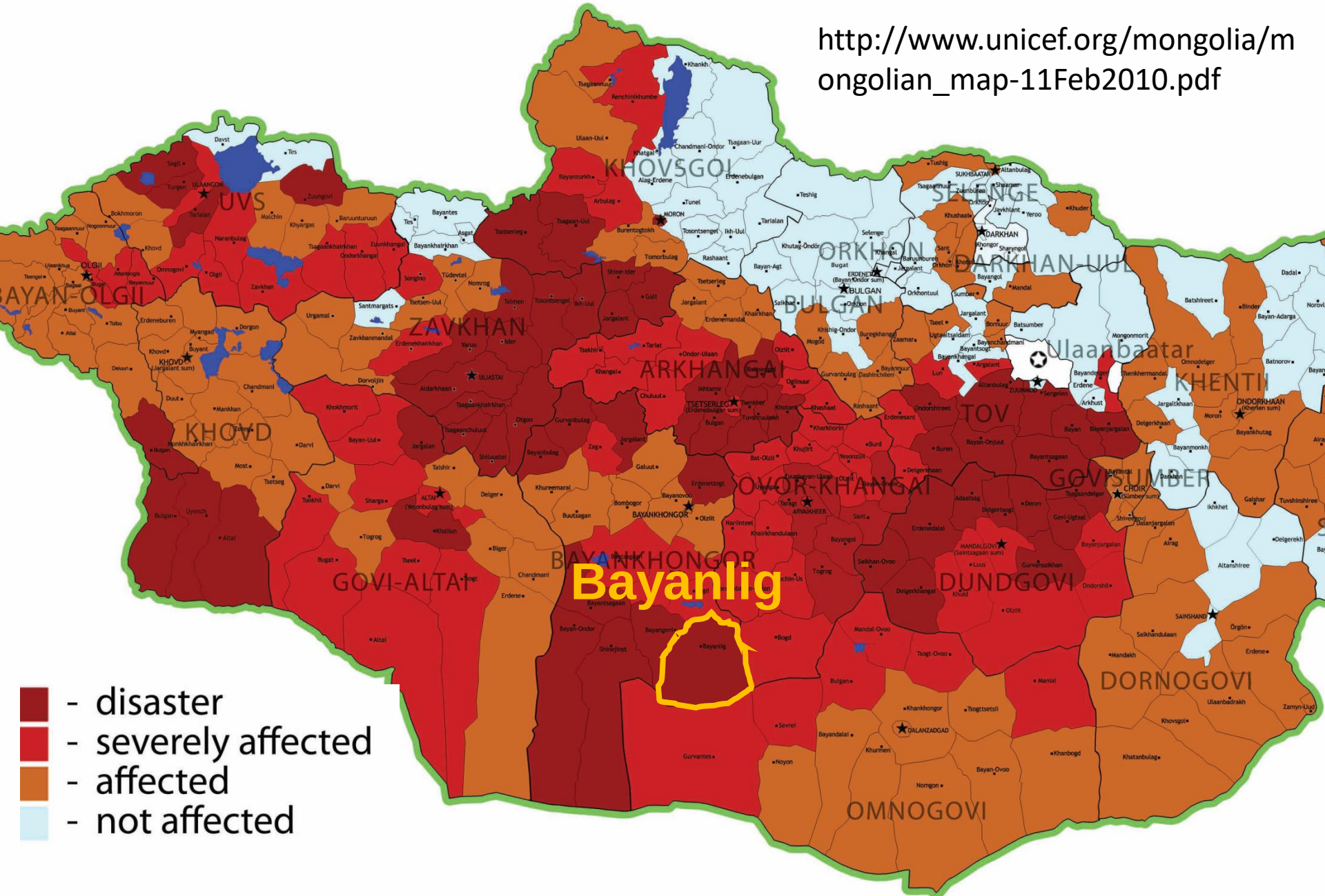


Research Methods:

- Participant observation
- Interviews, focus groups, survey
- Analysis of new and archival texts

2010 Dzud Severity Index (UNICEF, Feb. 2010)

http://www.unicef.org/mongolia/mongolian_map-11Feb2010.pdf



Discipline and Responsibility in Socialism

"Allocate tasks to household members according to their capabilities and fulfill them responsibly. Depend on each other and don't just sit [around]."

Sambuu 1987 [1944]

http://www.everyculture.com/Ma-Ni/Mongolia.html#b

Sambuu, Jamsrangiin [1944] 1987 Mal Aj Akhuidaa Yaj Ajillakh Tukhai Ardad Ögökh Sanuulga Surgaal (How to Herd: Some Advice for the People).Ulaanbaatar: The Mongolian People's Republic

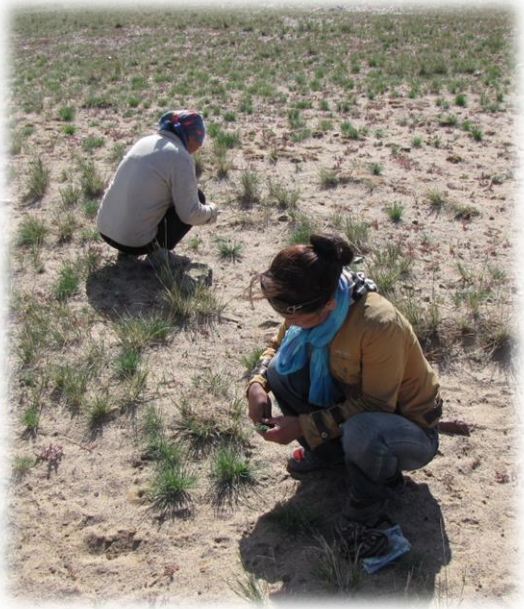
A message in a bathroom in Bayanlig: “Hard work is necessary for your reputation and honor/distinctions.”

-Lenin

Risk Mitigation Strategies

Migration

Gathering fodder



‘Handmade fodder’

Bayanlig herders today migrate up to 20 times in the summer and fall

Participant observation: this is exhausting

Making felt yurt cover

Local productivity contests and “collective works” draw on socialist traditions

Supplemental and Emergency Feed for Dzud

Plant-Origin Feeds	
Hay and various wild plants (e.g. *халгай, таана*)	Fermented beverages (e.g. *бардаа, бараашиг*)
Salted plant patties (*зоодой*)	

Animal Origin Feeds
Slaughtered animals' stomach contents (*Сэвс*)
Dairy products
Meat

A Warm Winter Shelter

- Sheltered Location
- Surrounding pasture reserved for winter
- Wind-block
- Dry manure on the ground

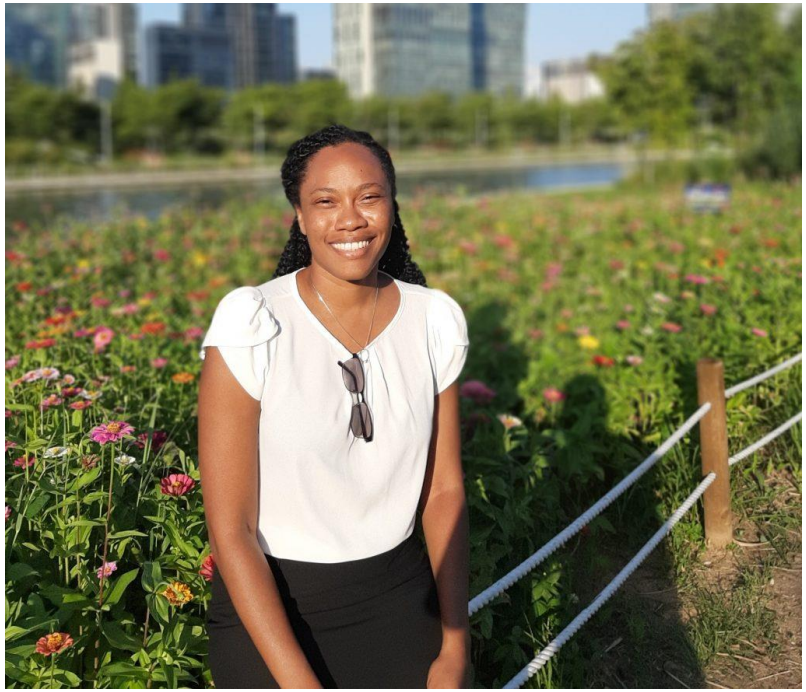
Herder survey results: What does successfully getting through *dzud* most depend on?

1. Industriousness
2. Experience
3. Labor Power
4. Economic Means
5. Luck

Some take-away points from my research

- Herders have deep knowledge, culture, and local institutions for managing winter risk
- Nevertheless, climate stress is increasing and cannot be managed definitively at local level
- Outside policymakers may misunderstand local values, social structures, and histories
  - Socialism did *not* make herders "lazy" and "irresponsible"
  - Misinterpretations lead to ineffective interventions
- Privatizing risk is insufficient for managing climate change and disasters such as dzud

Ainka Granderson, Caribbean Natural Resources Institute, climate specialist



Source: Ainka Granderson – CANARI

- PhD in resource management and geography
- Research on social barriers to climate adaptation in small Pacific island states

ELSEVIER

Climate Risk Management

Volume 3, 2014, Pages 55-64

Review

Making sense of climate change risks and responses at the community level: A cultural-political lens

Ainka A. Granderson

#1, Granderson on “Making Sense of Climate Change at a Community Level…”

- “I review the growing literature on risk perceptions and responses to climate change at the community level and argue for greater critical engagement with its cultural and political dimensions. I draw on work in the interpretive social sciences, including anthropology, critical geography, political ecology and sociology. The interpretive social sciences offer valuable insights and tools for capturing and problematising the ways of knowing, sense-making and mobilising around the risks posed by climate change.” [Granderson 2014:56]

Posted article #3, Andrei Marin on Herders' Observations

Global Environmental Change 20 (2010) 162–176

Contents lists available at ScienceDirect

Global Environmental Change

journal homepage: www.elsevier.com/locate/gloenvcha

Riders under storms: Contributions of nomadic herders' observations to analysing climate change in Mongolia

Andrei Marin *

"Predictions of climate change and its impacts are highly uncertain at regional and local levels… This article argues that a more robust analysis and prediction of climate change at local levels can be inferred from the integration of local people's observation of change with meteorological records and models.

The example proposed here is the analysis of climate change in the desert-steppe region of Mongolia. While regional models and local analyses agree that Mongolia has become warmer, predictions either ignore or are contradictory about the changes in precipitations and sand storms. The Mongolian pastoral nomads on the other hand identify longer and more intense droughts and sand storms as the most important recent climatic changes, relevant to their livelihoods."

Source: [(74) Andrei Marin | Norwegian University of Life Sciences - Academia.edu]

- Geographer, Norwegian U. of Life Sciences

#4, Tugjamba and Walkerden (geographers) on Climate Change in Eastern Mongolia

Slide source: https://conference.ifas.ufl.edu/aces18/Presentations/Salon%20K/Wednesday/1140%20Tugjamba%20-%20Y.pdf

#5, Mijiddorj et al. on Gobi Herders' Decision Making re: Climate Risk

- Tserennadmid "Nadia" Mijiddorj – Snow Leopard Trust
- Ariell Ahearn – Oxford, human geographer
- Charudutt Mishra – Snow Leopard Trust
- Bazartseren Boldgiv – NUM, ecologist

Photo source: 'I Want to Bridge the Gap Between Conservation Science and Local People' - Snow Leopard Trust

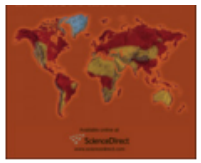
"We conducted semi-structured interviews with local herders as well as with individuals who had abandoned herding practices. We discuss how climatic factors such as dzud and drought can affect herders' livelihood decision-making, including engaging in informal/illegal mining, becoming a contracted herder or opening a small business in settlements."

#7, Lkhagvadorj et al. on Altai

ELSEVIER

Journal of Arid Environments

journal homepage: www.elsevier.com/locate/jaridenv



Pastoral nomadism in the forest-steppe of the Mongolian Altai under a changing economy and a warming climate

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ARTICLE INFO

Article history:
Received 22 June 2011
Received in revised form
27 June 2012
Accepted 31 July 2012
Available online 16 October 2012

Keywords:
Forest use
Livelihoods
Livestock husbandry
Logging
Mongolian Altai
Nomads

ABSTRACT

The population structure, educational level and the livelihoods of 82 households of pastoral nomads, the organization of livestock husbandry and its impact on the grassland and forest ecosystems of the Dayan high valley (>2000 m a.s.l.) in the Mongolian Altai, western Mongolia, were surveyed using interviews and secondary information from official sources. Changes following the transition from centrally planned (before 1990) to market economy were analyzed. Two thirds of the monthly mean income of ca. 310 USD per nomad household is cash (ca. 55 USD) or non-cash (ca. 165 USD) income from livestock husbandry. Cashmere sale accounts for 70% of the cash income from livestock husbandry, which has led to a strong increase of goat numbers after 1990. Forests are used for livestock grazing, fuel wood collection, logging, and fruit collection. Livestock breeding and the seasonal migration of the nomad households are no longer organized by the government. To avoid transportation costs, two thirds of the families have reduced their seasonal migrations. This trend was favored by rising temperatures and earlier snowmelt during the last few decades, but resulted in a shortage of fodder and intensified forest use. Therefore, the use of grasslands and forests in the Mongolian Altai is no longer considered to be sustainable.

#8, Ulambayar et al. on outcomes of CBRM

Conservation Letters
A journal of the Society for Conservation Biology
Open Access

LETTER

Social Outcomes of Community-based Rangeland Management in Mongolian Steppe Ecosystems

Tungalag Ulambayar[1], María E. Fernández-Giménez[2], Batkhishig Baival[3], & Batbuyan Batjav[1]

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[2] Department of Forest and Rangeland Stewardship, Colorado State University, Campus Mail 1472, Fort Collins, CO, 80523–1472, USA
[3] Nutag Partners, Usnii St, Ulaanbaatar, Mongolia

"Community-based rangeland management (CBRM) has been promoted as a promising option for achieving both rangeland conservation and community well-being…. We measured social outcomes of CBRM in Mongolia by comparing 77 formally organized pastoral groups with 65 traditional herder neighborhoods across four ecological zones. We used household surveys, focus groups, and interviews to measure livelihoods, social capital, and management behavior. Members of CBRM groups were significantly more proactive in addressing resource management issues and used more traditional and innovative rangeland management practices than non-CBRM herders…"

#9, Murphy on cashmere debt cycle

- Dan Murphy
- Anthropology
- Political ecology
- Economic anthro

"*WE'RE LIVING FROM LOAN-TO-LOAN*": PASTORAL VULNERABILITY AND THE CASHMERE-DEBT CYCLE IN MONGOLIA

Daniel J. Murphy

ABSTRACT

This paper explores the emerging articulations between microfinance and livestock production cycles among Mongolian pastoralists in contexts plagued by disaster and commodity market fluctuations. Ethnographic investigations of household production and vulnerability in two rural districts of eastern and western Mongolia demonstrates that both poor and wealthy households have become ensnared in a cashmere-debt cycle but that the bifurcation of livestock asset trajectories between large and small herds has also fostered diverse financial and herd management strategies that further exacerbate existing inequalities.

Practical Steps to get started on social research in Mongolia

- Consider interdisciplinary collaboration, including someone familiar with local culture
- Initial “scoping” research to establish research direction
- Procure “human subjects” approval through your institution
  - Avoid coercion of and costs to participants
  - What can you offer host community?
- Network locally to establish understanding, acceptance, support of your research, participation

For Wednesday: View Recorded Herder Interviews on Climate

- Recordings to be posted by Wednesday
- Watch once or twice, depending on time available
- Take notes on your reactions
- Look for themes
- Data coding – don't need to do it, but could be used in a more formal project
- Qualitative data analysis software—for bigger projects
- Write down a few compelling quotes for class discussion