

POLS303033 Environment, Human Security, and Conflict

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Week 11: Domestic responses

Overture music

David Bowie. 1973. Changes (Live, 1973) <https://youtu.be/xMQ0Ryy01yE>

Video #1: Introduction

Motivating puzzle

We have spent ten weeks focusing on the drivers of human security and conflict. The vast majority of the literature we have read focuses on exploring the “why”. Hardly any time has been focused on the “why not?”

Motivating question

How are national and local governments trying to mitigate or adapt to the challenges we have seen this semester?

The Washington Post article

Seay, Laura. 2017. “Rwanda’s gacaca courts are hailed as a post-genocide success. The reality is more complicated.” *The Washington Post*.

The Guardian article

Slezak, Michael. 2017. “Australian local councils lead the way in tackling climate change as federal policy stalls.” *The Guardian*.

ACT adapting to climate change website

ACT climate ready quiz

The Globe and Mail article

Rabson, Mia. 2019. "Saying climate change is real could be seen as partisan activity during election campaign, Elections Canada warns."

Pictures of winners of Nobel prize in economics

Global greenhouse gas emissions world map, 2005

The Washington Post article

Noack, Rick. 2015. "Map: What the world does and doesn't know about climate change." The Washington Post.

Global perceptions of the climate change threat

Source: Gallup (<https://news.gallup.com/opinion/gallup/321635/world-risk-poll-reveals-global-threat-climate-change.aspx>)

2019 survey results from Gallup

Perceptions of climate change threat by education

Top countries for people who don't know that climate change is a threat

Videos on mitigation and adaptation

Al Jazeera English. 2019. Floating farms in Bangladesh help farmers survive floods. <https://youtu.be/c5MKISoubOY>

BBC Reel. 2021. The mystery of Siberia's exploding craters. https://youtu.be/U-6BHEoFI_A

Al Jazeera English. 2020. "China floods raise concerns over Three Gorges Dam's efficacy." https://youtu.be/W_6bC5jiP5U.

Video #2: Defining our terms

Photo of Methuselah bristlecone pine

Four goals of political science research

Prediction
Policy
Explanation
Description

Old Tjikko Norway spruce root system

Pando quaking aspen root system

How to respond to environmental challenges and change?

Mitigation

Adaptation

Quote from “Climate Change Impacts in the United States: Highlights”: 62

Mitigation

Definition: Efforts to reduce or prevent an undesirable outcome.

Mitigation

When speaking about about environmental security these efforts can include using government policy, markets, and individual behaviour to encourage new technologies and improve older technologies to prevent environmentally detrimental effects from human behaviour.

Example: Reducing waste and inefficiency in agricultural production. 50% of food produced is lost and not consumed.

Example: Reducing dependence on non-renewable resources in energy and transport by helping shift to renewable resources

Reuters article

Lee, Natasha. 2018. “Singapore’s ‘freegans’ find treasure in trash.”

ABC News article

Williamson, Brett. 2017. “Freegan food: Would you dumpster dive for your weekly meals?”

The Atlantic article

Mull, Amanda. 2019. “The murky ethics of the ugly-produce business.” The Atlantic.

Adaptation

Definition: Adjustments in ecological, social, or economic systems in response to actual or expected climatic stimuli and their effects or impacts. It refers to changes in processes, practices, and structures to moderate potential damages or to benefit from opportunities

associated with climate change. (UNFCCC
[<http://unfccc.int/focus/adaptation/items/6999.php>])

General components:

- Observation
- Assessment of climate impacts and vulnerability
- Planning
- Implementation
- Monitoring and evaluation of adaptation actions.

UN climate change regime adaptation cycle

ABC News article

Hancock, James. 2018. “Green roofs for Australian cities would help reduce flooding and save on bills, study shows.”

Risk

Definition: “A function of the (potential) impact of an event and the likelihood of it occurring.

“Risks can increase the vulnerability and decrease the resilience of a community.

“Vulnerability in turn is usually understood as a function of exposure to change, sensitivity to change and a community’s capacity to adapt to change.” (Vivekananda et al 2014: 917; emphasis added)

Perceived versus actual risk

World’s deadliest animals

Wired article

Weiss, Sabrina. 2019. “The climate crisis has sparked a Siberian mammoth tusk gold rush.” Wired Magazine.

Salient actors

- Household
- Community
- Local government
- Business
- Regional government coordination
- National government

Examples

- A local Deep Water Well Project in Dang, Mid-Western Nepal
- CookIt solar stoves sold to Darfur refugees in Chad
- State-level cap and trade efforts in California and a regional cap and trade system in NE & mid-Atlantic US states (RGGI)
- A carbon tax in British Columbia
- A National Disaster Management Authority in Pakistan

Video #3: Australia and climate change—observation and assessment

National Climate Resilience and Adaptation Strategy, 2021-2025

Four Connected Domains

Venn diagram between mitigation and adaptation Observation and assessment

Summary of current climate change effects in Australia (p. 10)

Summary of the top 50 global polluters, 2018

Source: Next10.org. 2018. *California Green Innovation Index*. p. 64.

Global greenhouse emissions per type of gas and emitters.

Annual CO₂ emissions from fossil fuels, by world region

World map of per capita CO₂ emissions, 2020

Coal production per capita, 2020

Coal reserves

80% of world's total coal reserves are in 10 countries

Australian energy consumption, by fuel type

Videos on climate change and security in Australia and US

NBC News. 2021. "How Climate Change Is Posing A Mounting Threat to U.S. National Security." <https://youtu.be/IFSjuyDP6XU>

Australian Security Leaders Climate Group. 2021. “Australian Security Leaders Climate Group.” <https://youtu.be/9vtXW4Zmk08>

Video #4: Australian mitigation and adaptation

Installed solar energy capacity

Global venture capital investment in clean technology companies

Cap and trade

California’s cap decreases 3% every year past 2013.

Putting a price on carbon

From 2012 to 2019 number of pricing instruments jumped from 20 to 57 (World Bank 2019: 6)

World Bank Carbon Pricing Dashboard

New York Times article

Source: Plumer, Brad, and Nadia Popovich. 2019. “These countries have prices on carbon. Are they working?” The New York Times 2 April 2019.

US & Canada carbon price and share of emissions covered

Australia carbon price and share of emissions covered

Regional, national, and subnational carbon pricing initiatives

Australia’s carbon tax

- Australia’s tax was the **first explicit national tax on carbon emissions**.
- The **tax level** of \$23 per metric ton in July 2014, one of the highest in the world.
- The **repeal** was also precedent-setting, and it has garnered far more global attention.

Carbon tax timeline

1997—Australia refuses to ratify Kyoto Protocol
2002—UK adopts emissions trading scheme (ETS) and joins EU scheme in 2005
2007—John Howard proposes ETS
2007—New PM Rudd ratifies Kyoto Protocol
2008—PM Rudd announces a proposed cap-and-trade scheme, which is voted down (twice) in 2009

2010—Labour shelves ETS due to Senate opposition
2011—Carbon tax passes Senate
2012—1 July, carbon tax begins
2013—PM Rudd plans to terminate tax and replace with ETS
2014—10 July, carbon tax repeal

Graph of changes in electricity generated by coal and change in emissions

National average representative residential retail electricity prices over time

Video #5: Tying mitigation and adaptation to national security

Climate Council. 2015. “Be Prepared: Climate change, security, and Australia’s Defence Force.”

Risk path diagram

Climate change is putting the ADF under pressure

Comparison of military action on climate change

Australia’s military response

- Launched 2011 initiative to raise awareness in the military, develop integrated energy strategy, link military with business and academia
- Push towards green procurement
- First responder to natural and man-made disasters

2013 National security strategy

Climate only mentioned four times in passing in entire report

2020 Defence strategic update

Australian Army reservists to be compulsorily called out to respond to more bushfires, natural disasters and coronavirus-style crises.

Confront climate change to stop military being diverted to natural disasters, former ADF chief warns.

Videos

Center for Climate & Security. 2022. Director Erin Sikorsky talks about the Army Climate Strategy on the Weather Channel | Feb 12, 2022. <https://youtu.be/HFlSgXH-qxI>

SBS News. 2019. Defence chief warns of increasing security threat from global warming
<https://youtu.be/Wdx-SEnUrYI>

Video #6: USA mitigation and adaptation

US Army climate strategy document 2022

US Fourth National Climate Assessment 2022

Projected changes in US Annual average temperature

Interconnected impacts of climate change

Weather and climate-related impacts on US military assets

Climate effects on US international interests

Mitigation-related activities at state and local levels

U.S. sulfur dioxide. Cap-and-trade system

- 1990 US Clean Air Act Amendments created a sulfur dioxide emission permit system.
- Aimed at ending acid rain.
- By 2007 level was down 43% from 1990 levels.

Australia and the US are two developed countries with resources to use to mitigate and adapt to environmental and human security risks. Nepal and other developing countries have fewer economic tools

Nepal video

DW News. 2021. Protecting climate change aid in Nepal. <https://youtu.be/Ykc4R6xRX7s>

The Kathmandu Post. 2021. Worsening wildfires a reminder that the country lacks clear policies.
<https://youtu.be/DxYh0BtoJ14>

The Kathmandu Post. 2022. Election day in Nepal. <https://youtu.be/JXyFVkJPrGJo>

Video #6: Conflict and adaptation in Nepal

The Economist article

“Countries most exposed to climate change face higher costs of capital.” 15 August 2019.

Nepal timeline

1951—End of hereditary rule of Rana chief ministers
1991—First democratic elections, Congress Party wins
1995—Maoist revolt against monarchy begins.
2001—Royal family killed in palace massacre.
2006—Peace deal leading to end of monarchy in 2007
2008—Maoists win election to new Constituent Assembly
2009—Maoists leave government
2013—Congress Party wins election without majority
2015—April, 7.8 magnitude earthquake kills more than 8,000
2015—September, new constitution finally passes
2015—October, new elections leading to coalition government
2016—July, Maoists pull out of coalition
2016—August, Maoist leader reelected as PM for second time
2017—April, Three former soldiers are convicted over the murder of a 15-year-old girl during the civil war, the first time serving or former members of the army have been found guilty of crimes linked to the conflict.

Nepal 2015 earthquake casualties map

Nepal flood and landslide affected districts, 2016

Vivekananda et al. (2014) cover page

Vivekananda et al. (2014) map of research areas

Key characteristics of Banke, Dang, and Rolpa districts

Vivekananda et al. (2014) conceptual path diagram

Path diagram of adaptation measures

Nepal Climate Change Support Programme (NCCSP)

- 2010—National Adaptation Programme of Action approved
- 2011—Nepal's Climate Change Policy passed
- 2013—NCCSP created with funding from UK Aid/DFID, EU, UNDP
- 80% of spending aimed at local level activities and 20% for institutional capacity building and coordination at the national level
- 100 Local Adaptation Plan of Actions (LAPAs) developed by the local communities at VDC level are being implemented
- Through NCCSP, LAPAs are being implemented in 14 districts
- Gender equality sought in participants and management committee members.
- 50% participants from Dalit and other disadvantaged communities

NCCSP adaptation categories

Conclusions

Motivating question—How are national and local governments trying to mitigate or adapt to the challenges we have seen this semester?

- Defining mitigation, adaptation, and risk
- Specify salient actors
- Developed countries have used various mitigation efforts including cap-and-trade and carbon taxes.
- Adaption efforts often include security concerns
- Developing countries often face higher risks with fewer resources.

Exeunt music

Les Misérables cast. 2010. “One Day More!” 10th Anniversary Concert.
<https://youtu.be/IddP8AAIGTQ>