

A large, rusted shipwreck is the central focus of the image. The ship's hull is heavily corroded, showing a mix of brown, orange, and grey. It is partially buried in the sand. In the background, another smaller shipwreck is visible on the beach. The sky is a deep blue with wispy white clouds. The overall scene conveys a sense of environmental decay and human impact.

Environment, Human Security & Conflict

Week 1: Introduction, course overview & conflict causes

Richard W. Frank
School of Politics & International Relations

Today

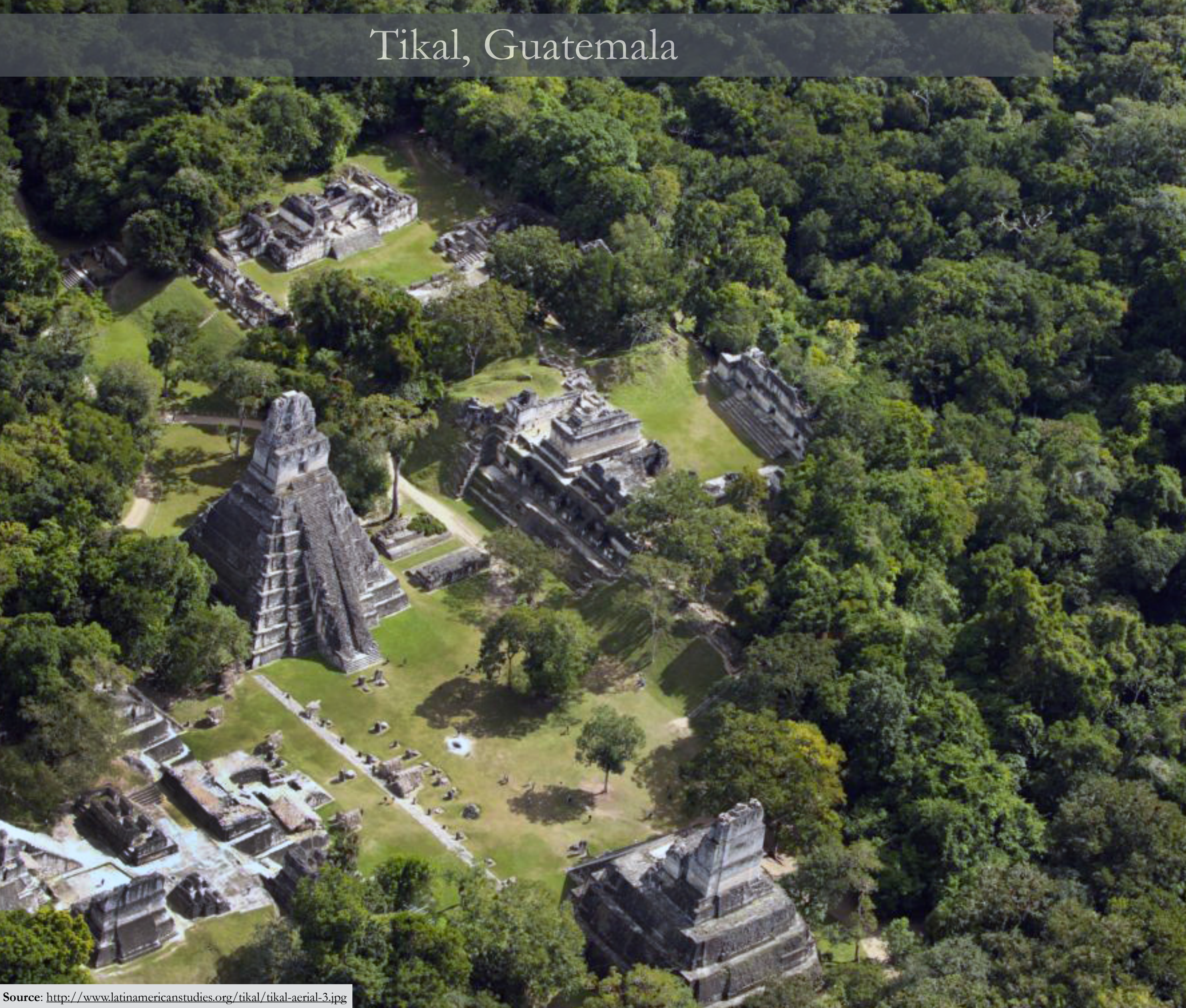
I. Introduction

II. Course overview

III. Conflict



Tikal, Guatemala



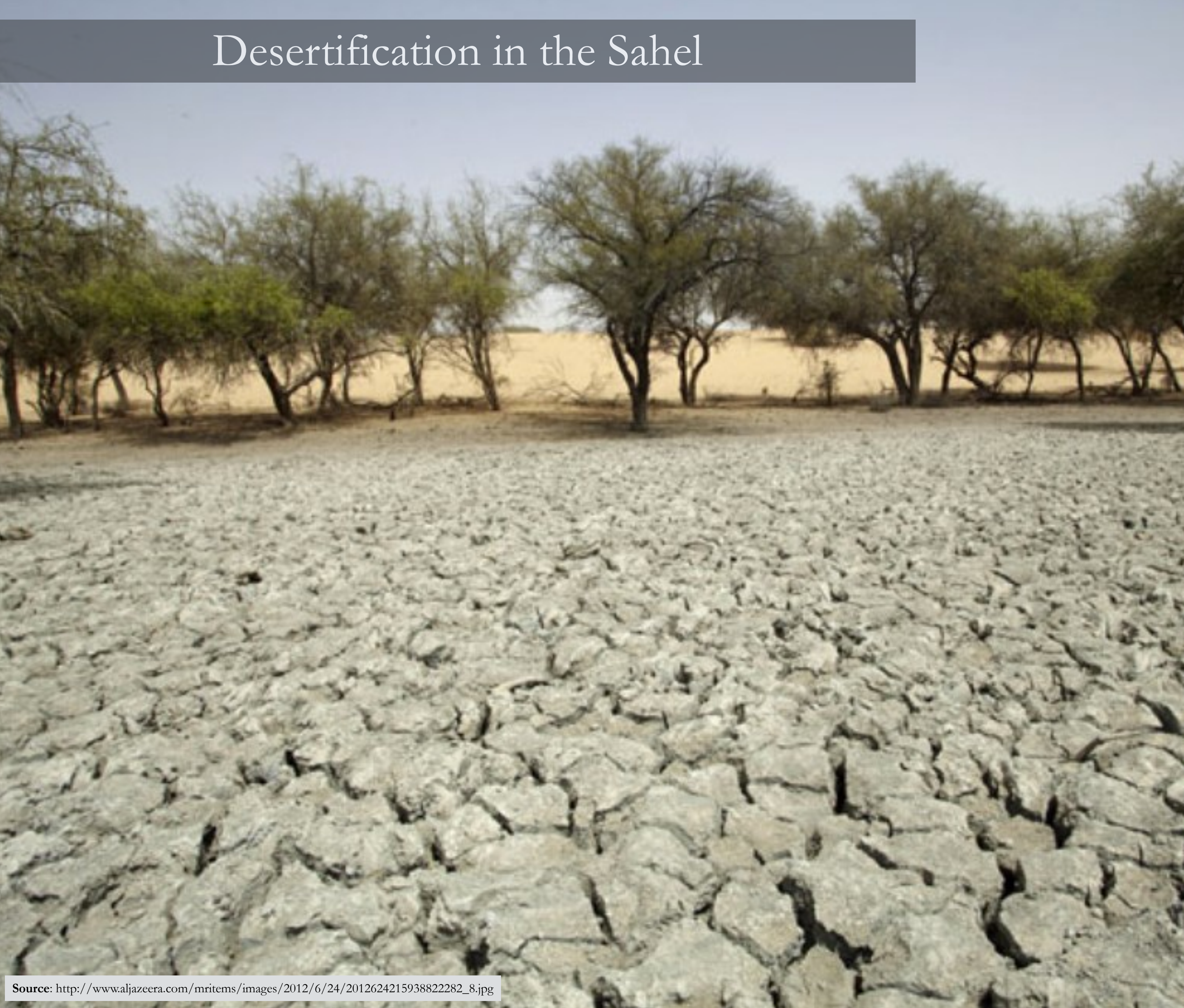
Iraq, 1991



Gold mining in the DR Congo, 2015



Desertification in the Sahel



Source: http://www.aljazeera.com/mritems/images/2012/6/24/2012624215938822282_8.jpg

Aral Sea, Uzbekistan



Source: <https://d50818271zpfo.cloudfront.net/content/dailybeast/articles/2014/10/04/how-russia-destroyed-the-aral-sea/jcr:content/image.img.2000.jpg/1412463732697.cached.jpg>

Dhaka, Bangladesh



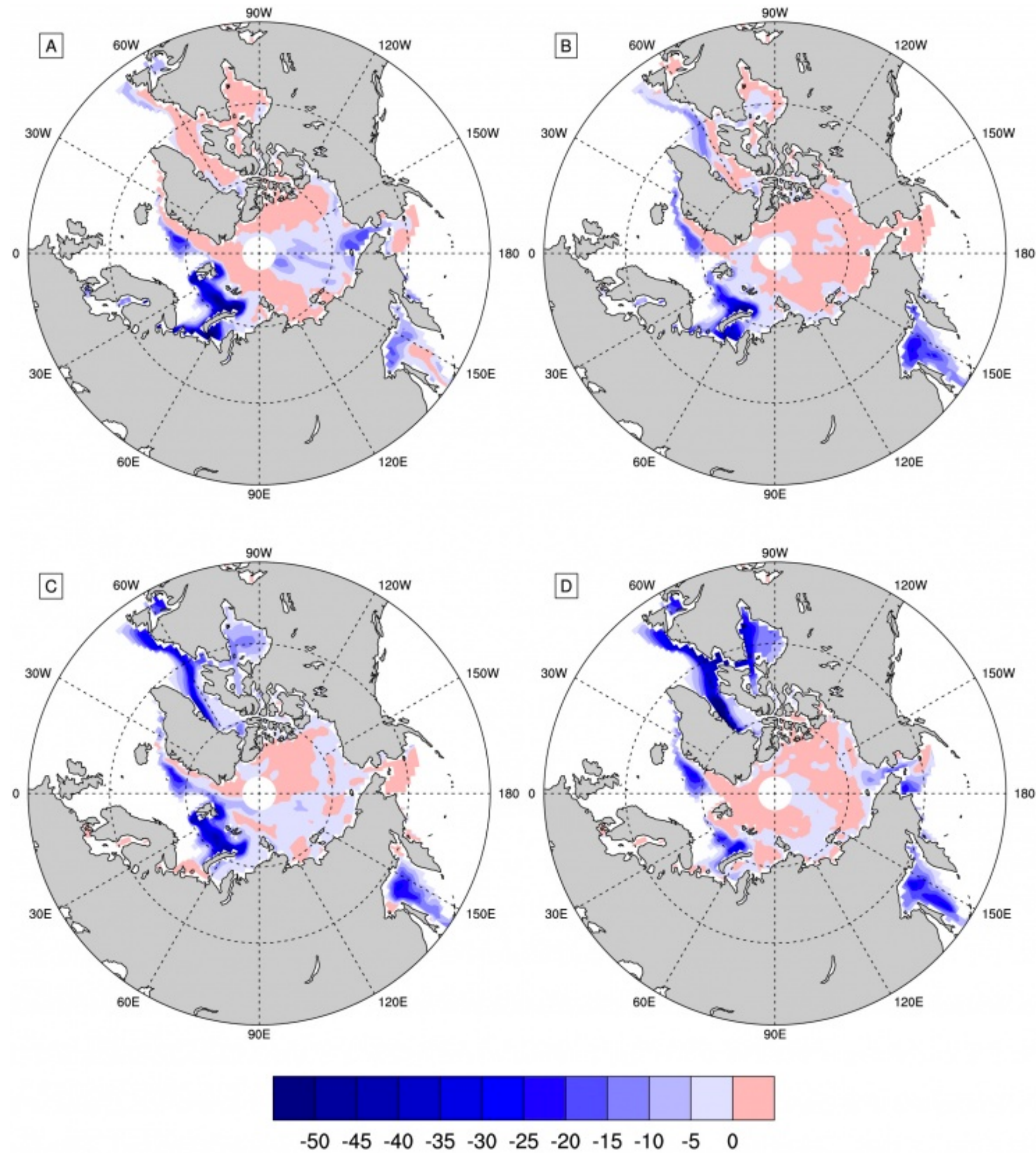
Banda, Aceh after 2004 Indian Ocean tsunami



Refugees fleeing Syria, 2015



Arctic sea ice loss



Beaufort Sea, Arctic Ocean, 14 July 2016



Antarctic ice gain and loss

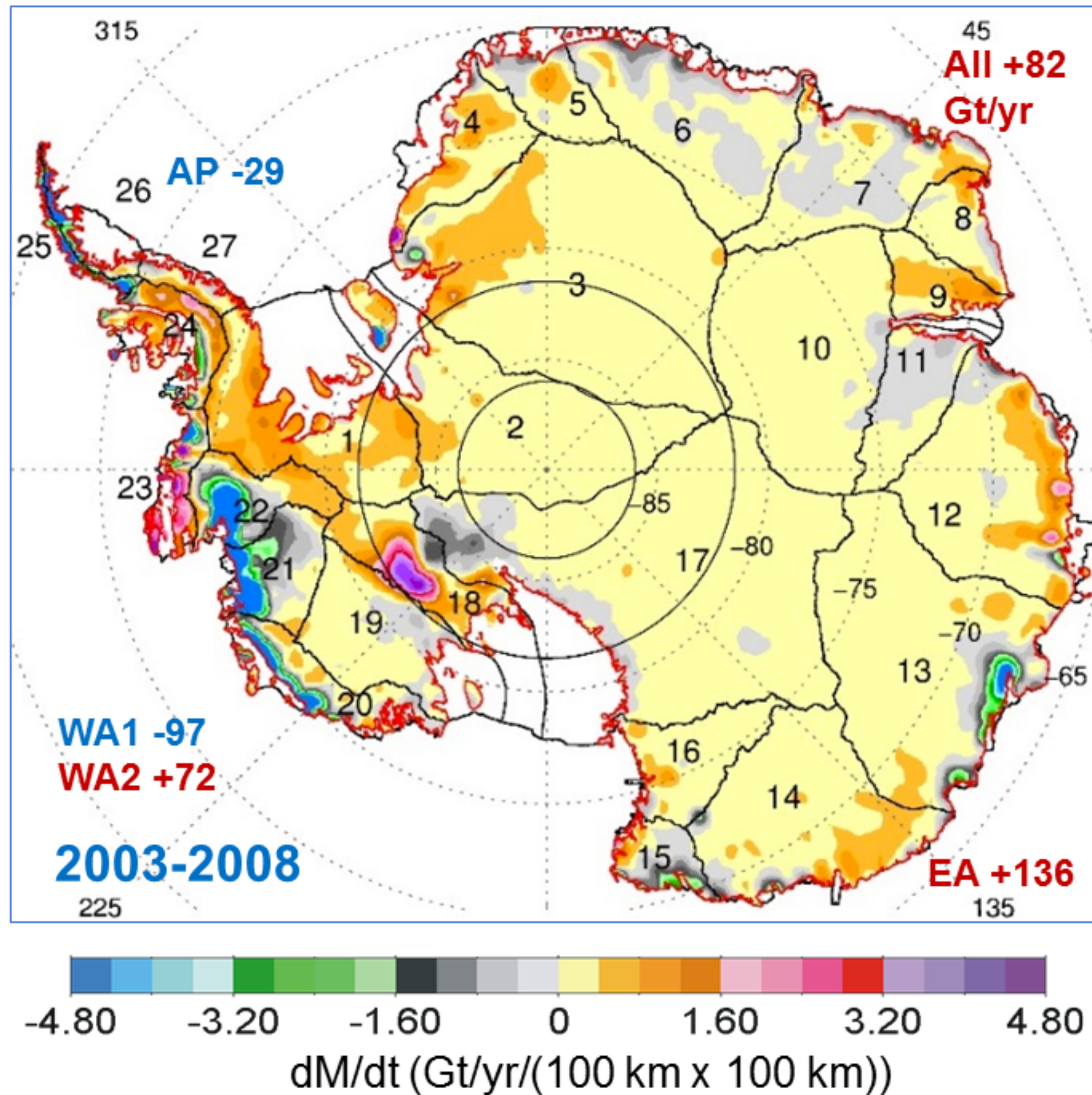


Figure 1b

Latin America & Caribbean region: Exposed population (5m SLR)



Figure 2b
Middle East and North Africa region: Exposed population (5m SLR)

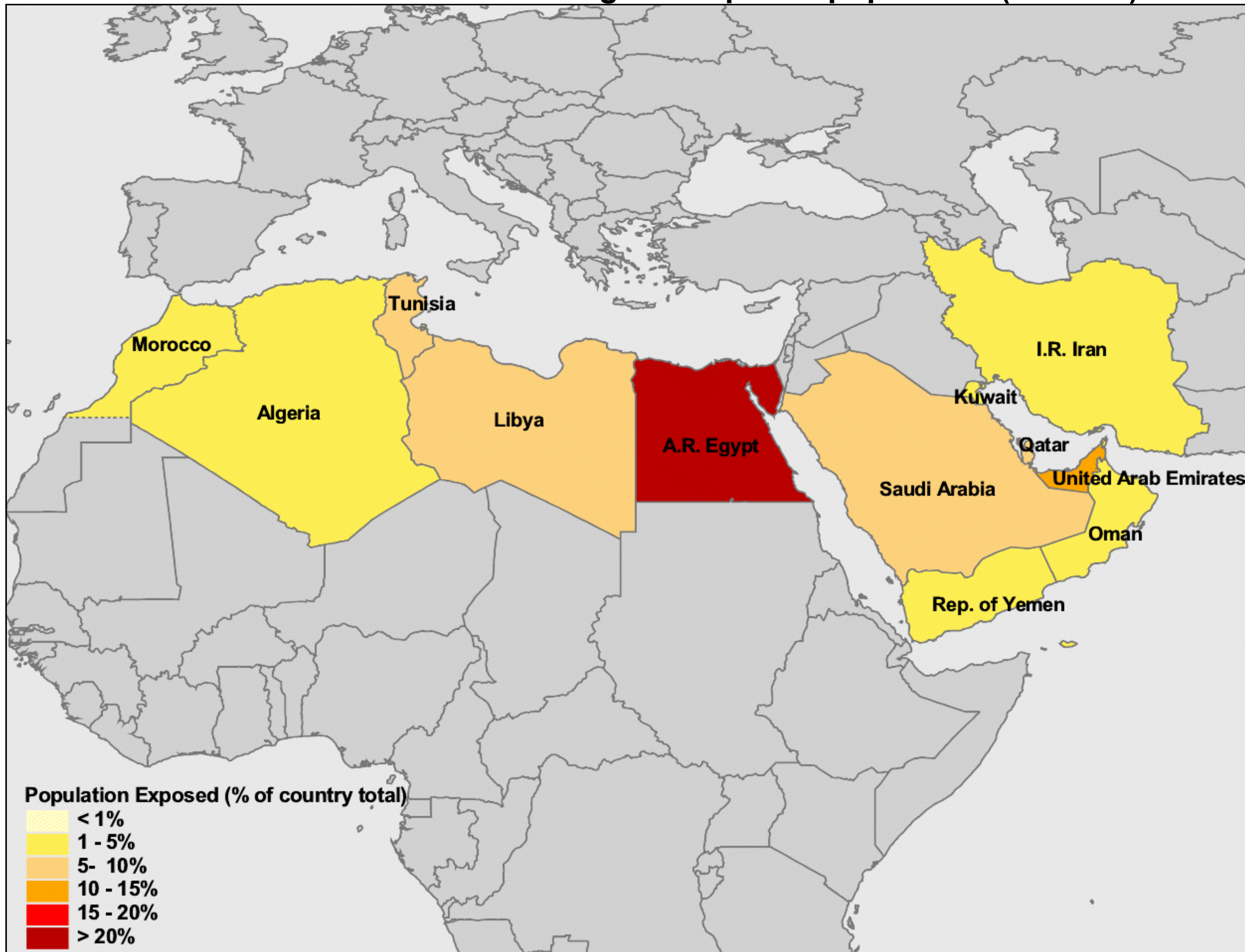
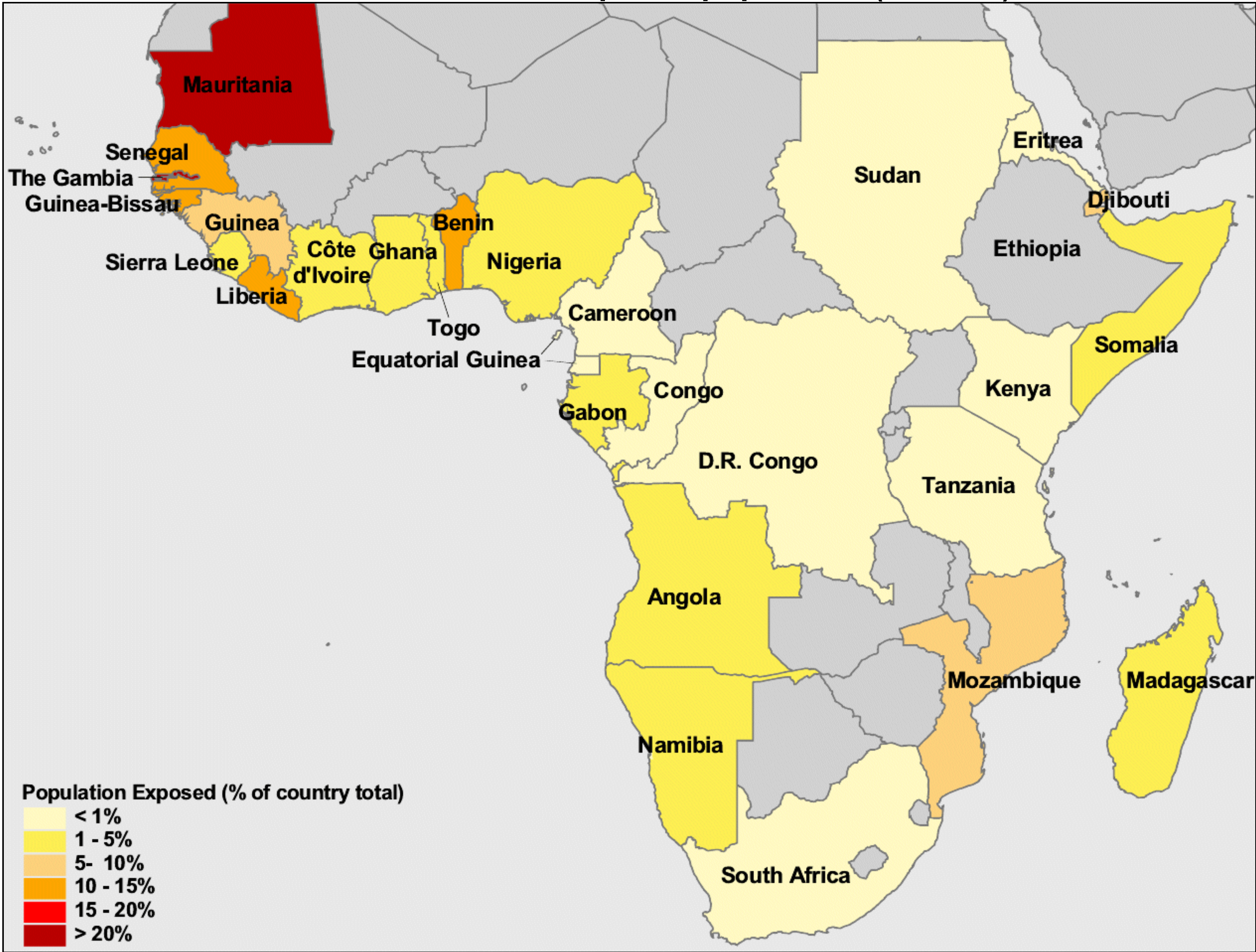


Figure 3b
Sub-Saharan Africa: Exposed population (5m SLR)

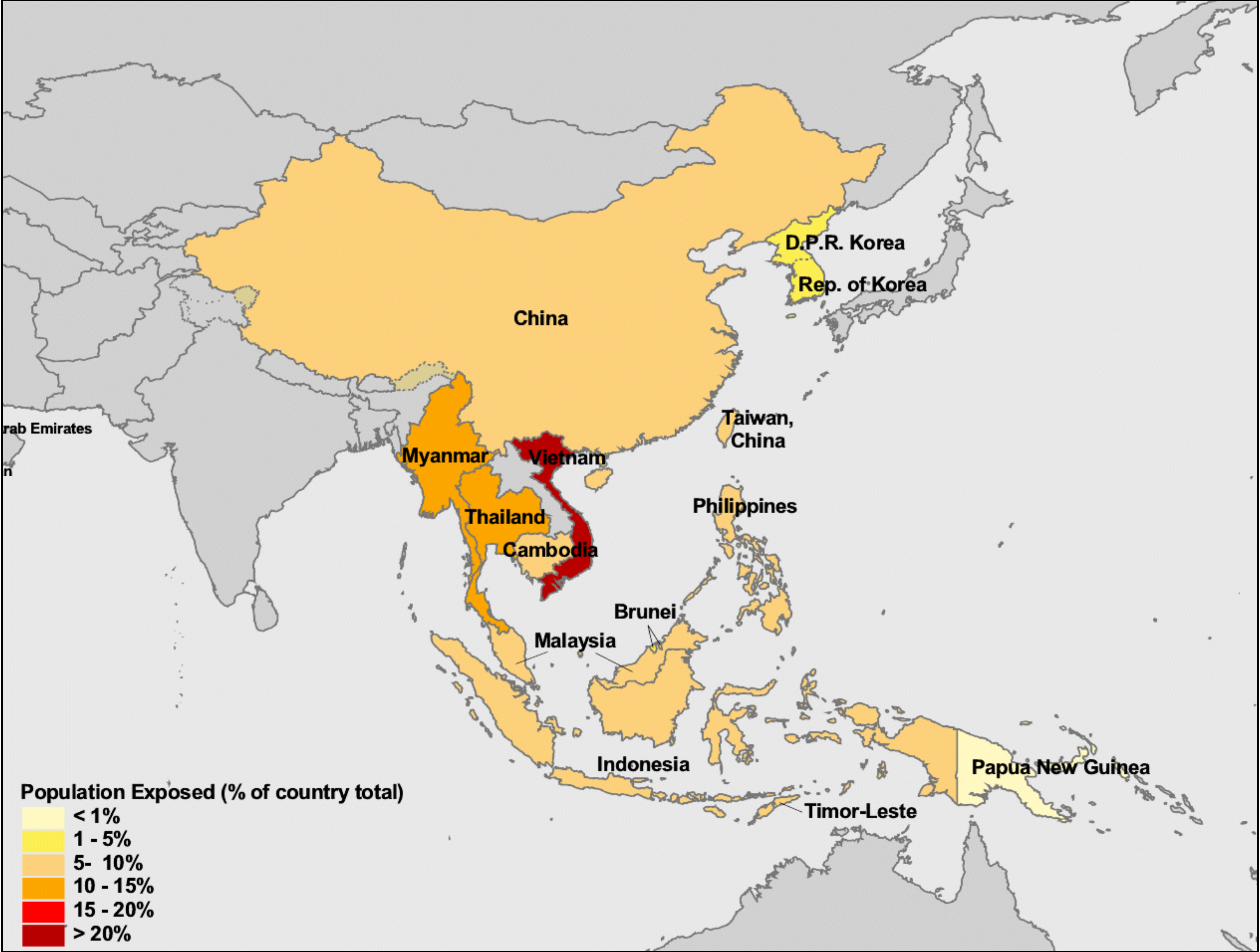


Source: Dasgupta et al. 2007. "The Impact of Sea Level Rise on Developing Countries: A Comparative Analysis." World Bank Policy Research Working Paper #4136. Washington DC: The World Bank: 24.

Figure 5b
South Asia: Exposed population (5m SLR)

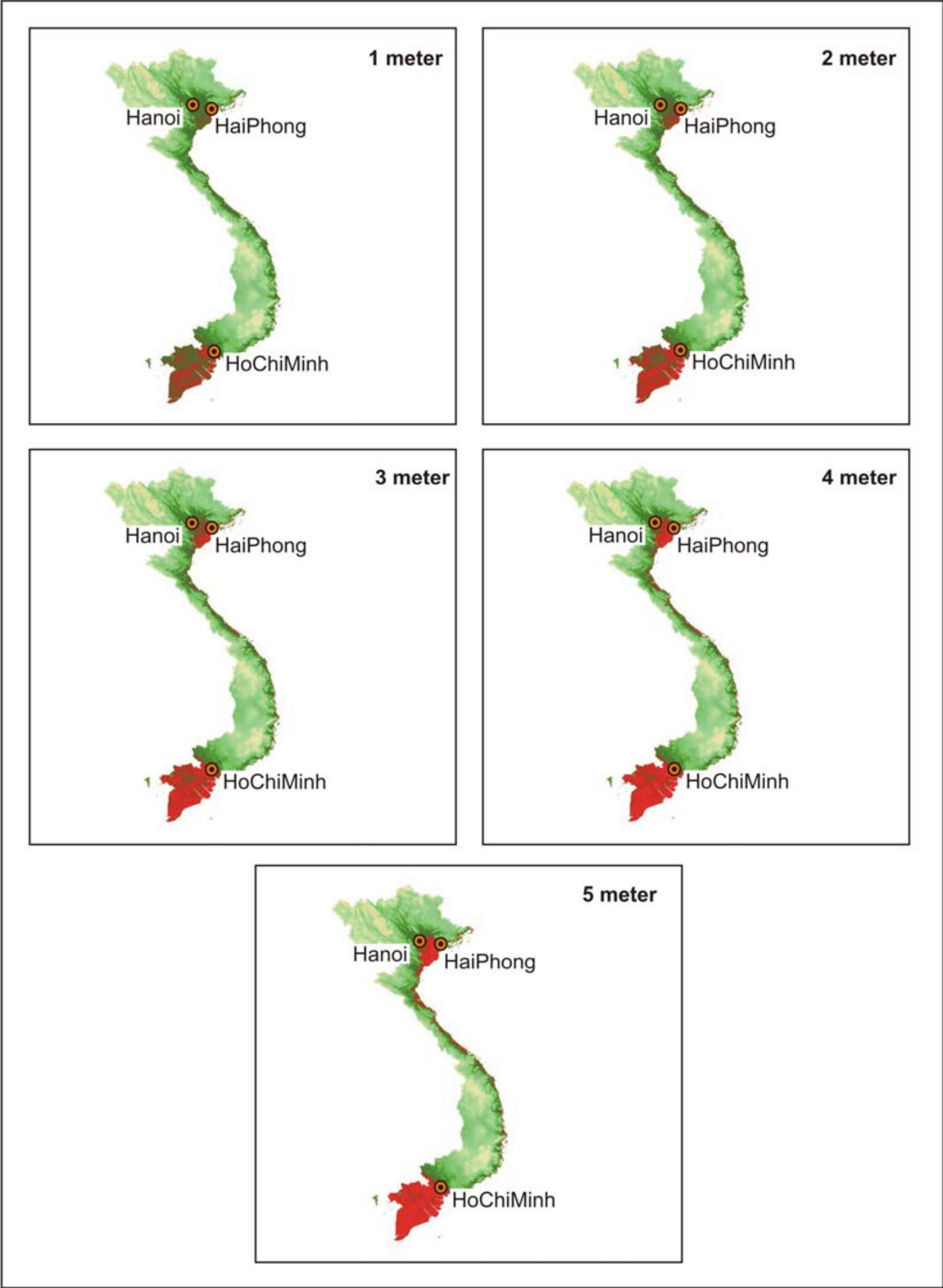


Figure 4c
East Asia: Exposed population (5m SLR)



Source: Dasgupta et al. 2007. "The Impact of Sea Level Rise on Developing Countries: A Comparative Analysis." World Bank Policy Research Working Paper #4136. Washington DC: The World Bank: 31.

Figure 4b
Inundation zone: Vietnam





Sections

ri

Top corporations have vowed to fight climate change. Researchers say their plans fall short.

A study by the New Climate Institute says companies aren't doing enough to meet climate targets and eliminate carbon emissions



Listen to article 6 min



A cargo ship owned by Maersk arrives at the New York City harbor in 2018. The Danish shipping company was praised in the new study for vowing to reduce emissions from terminals by 70 percent. (Spencer Platt/Getty Images)

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2 Cracking down on methane 'ultra emitters' is a quick way to combat climate change, researchers find



3 Biden officials push to hold up





Nov 15, 2021, 10:00am EST | 2,134 views


COP26: A Failure For The Planet And The World’s Poor



Michael Sheldrick Contributor
Global Citizen Contributor Group ⓘ
Leadership Strategy
I write about global policy and lead advocacy at Global Citizen.

 Listen to article 9 minutes







What happened at COP



Measured against its own objectives, COP26 did not deliver. The countries that are primarily responsible for the worsening climate crisis failed to step up at the world’s annual climate summit, which ended in Glasgow on Saturday.

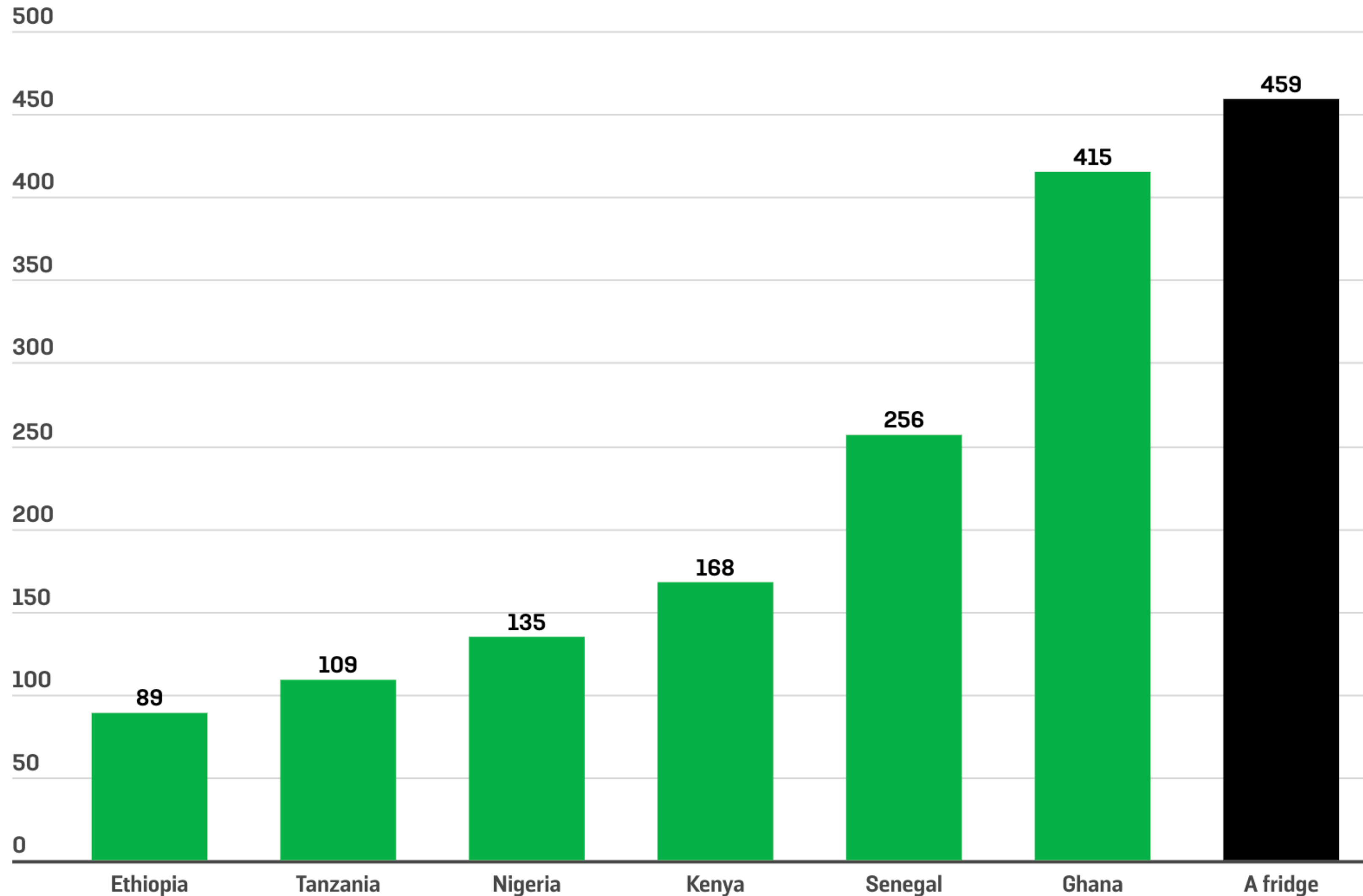


The world’s largest and wealthiest economies failed to make commitments to keep planetary warming to 1.5°C. Warming above that level, scientists agree, results in conditions that aren’t just bad, but irrecoverably catastrophic. Estimates vary, but the level of commitment to slashing emissions seen at COP will result instead in warming from 1.8°-2.4°C — and that’s assuming that key pledges are followed up with meaningful policies and legislation.

Wealthy nations also failed to address the needs of the most vulnerable countries, by not properly funding adaptation or committing financing for the loss and damage these countries are already experiencing. They have still not delivered on their promise to provide \$100B per year in climate funding for developing countries. Keeping this promise was seen as a key test ahead of COP26 and critical to restoring trust and goodwill between developed and developing countries in the context of

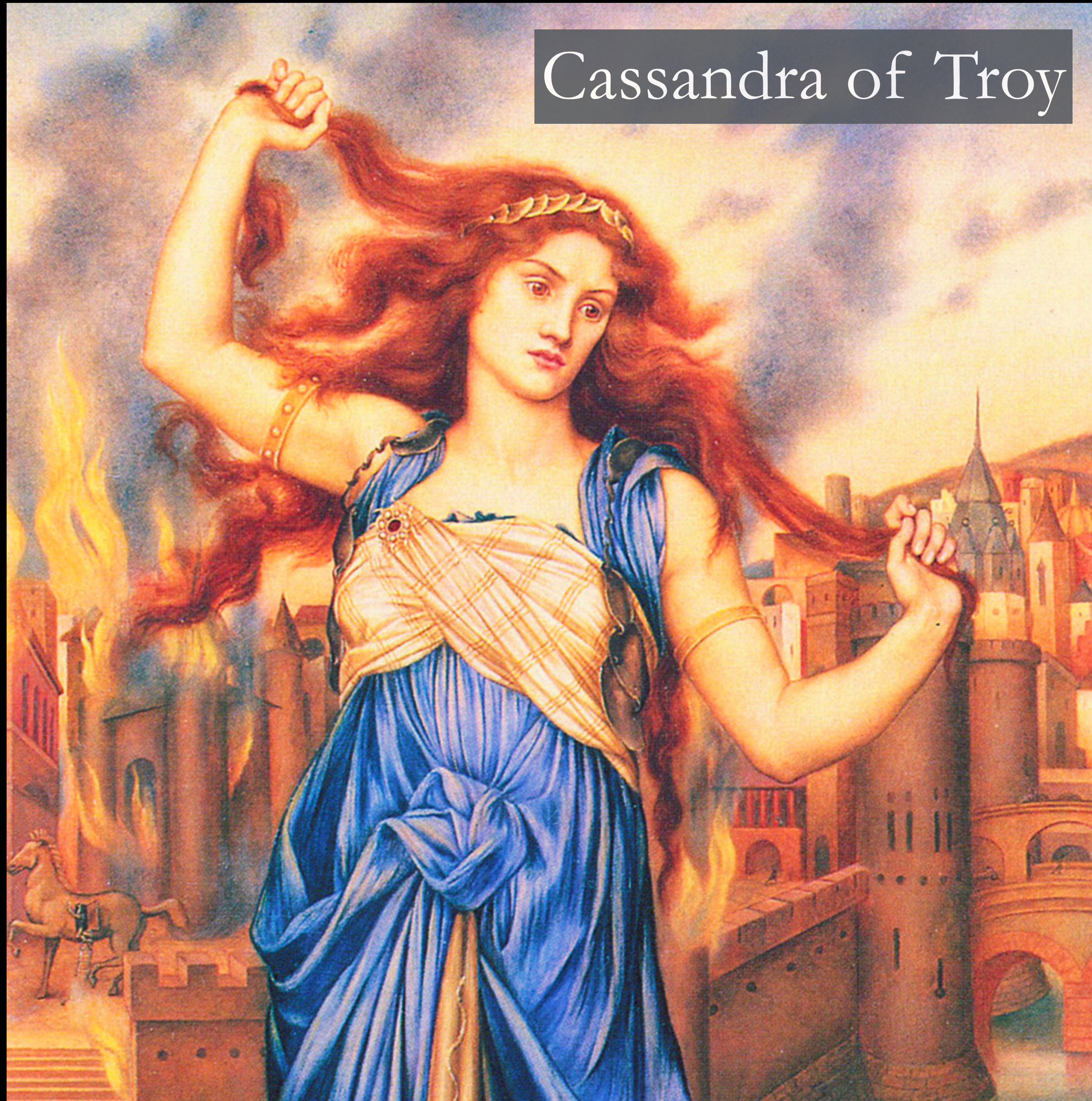
African Energy Use Per Person Vs. a Typical American Refrigerator

Annual kilowatt-hours of electricity consumed per capita, 2017



SOURCE: INTERNATIONAL ENERGY AGENCY AND ENERGY FOR GROWTH HUB

Cassandra of Troy



chicken little





The Psychological Impacts of Global Climate Change

Thomas J. Doherty

Susan Clayton

*Lewis & Clark Graduate School of Education and
Counseling
College of Wooster*

An appreciation of the psychological impacts of global climate change entails recognizing the complexity and multiple meanings associated with climate change; situating impacts within other social, technological, and ecological transitions; and recognizing mediators and moderators of impacts. This article describes three classes of psychological impacts: direct (e.g., acute or traumatic effects of extreme weather events and a changed environment); indirect (e.g., threats to emotional well-being based on observation of impacts and concern or uncertainty about future risks); and psychosocial (e.g., chronic social and community effects of heat, drought, migrations, and climate-related conflicts, and postdisaster adjustment). Responses include providing psychological interventions in the wake of acute impacts and reducing the vulnerabilities contributing to their severity; promoting emotional resiliency and empowerment in the context of indirect impacts; and acting at systems and policy levels to address broad psychosocial impacts. The challenge of climate change calls for increased ecological literacy, a widened ethical responsibility, investigations into a range of psychological and social adaptations, and an allocation of resources and training to improve psychologists' competency in addressing climate change-related impacts.

Keywords: climate change, psychological impacts, disaster psychology, psychological adaptation

ena, such as increased population, urbanization, and disparities in wealth (Kazdin, 2009, p. 342; Stokols, Misra, Runnerstrom, & Hipp, 2009). The concept of climate change assumes a progression of extreme weather and environmental changes at an unprecedented rate and scale. It is important to recognize that the severity of impacts is due not solely to extreme weather or other natural events following from global climate change but rather to the interaction between human systems and these events (see National Research Council, 2008). For example, psychological impacts are likely to be mediated and moderated by media representations and information technologies (Reser, 2010), resilience or vulnerability to disasters and environmental changes (Brklacich, Chazan, & Dawe, 2007), and social and cognitive factors (Leiserowitz, 2007; Weber, 2006).

This article differentiates three classes of climate change-related psychological impacts, offers examples, and discusses interrelated psychological processes and contextual factors (see Figure 1 for an overview). Acute and direct impacts include mental health injuries associated with more frequent and powerful weather events, natural disasters, and adjustment to degraded or disrupted physical environments (Albrecht et al., 2007; Costello et al., 2009; Few, 2007; Page & Howard, 2010). Indirect and vicarious impacts include intense emotions associated with observation of climate change effects worldwide and anxiety and



Climate Change Enters the Therapy Room

Ten years ago, psychologists proposed that a wide range of people would suffer anxiety and grief over climate. Skepticism about that idea is gone.



The impact of climate change on youth depression and mental health



Youth depression is a major risk factor for suicide, and a leading cause of disability worldwide,¹⁻³ hence its impact is both devastating and substantial. Although researchers have suggested several potential causal factors that contribute to the development of youth depression including genetic loading, low socioeconomic status, and adverse life events,² the impact of climate change remains relatively unexplored. In the past three decades, global annual surface temperatures have increased by approximately 0.2°C per decade, giving rise to concerns for planetary and environmental human health.⁴ Furthermore, global scale specific humidity, defined as the ratio of water vapour mass of moist air taken with respect to the total mass of the system, has increased in response to rising temperatures.⁵ These planetary changes are believed to be anthropogenic in origin, and are anticipated to increase in extreme precipitation, tropical cyclones, and heat stress events.⁵ In this Comment, we highlight the potential value of considering climatological variables in the assessment of young people with mental illness.

One position advanced in the literature is that climate change causes extreme heat events, intensification of storms, flooding, and coastal erosion, all of which might disrupt the societal and economic structures that underpin mental health.⁶ Within this framework, individuals in the developing world would be most vulnerable to these direct environmental effects. For example, climate change might alter the quality of soil, preventing agricultural practices that would otherwise supply populations with food.⁷ Ongoing climate change could directly result in the degradation of the physical environment, negatively impact food yields and freshwater supplies, leading to the displacement of populations, and eventual loss of livelihoods.⁷ Therefore, climate change, and its ensuing negative impact on the physical environment could exacerbate poverty, malnutrition, and disease. Each of these factors could, in turn, serve as independent risks for the development of youth depression in young people living in developing nations.

Young individuals with depression and anxiety might be at a disproportionately increased risk for worsening symptoms in the face of changing climate.^{8,9}

Climate change exposes pre-existing psychological vulnerabilities. Individuals with a pre-existing resilience deficit might fail to prepare adequately for extreme events due to the changing climate.¹⁰ By contrast, individuals and communities who are prepared for natural disasters associated with changing climate might experience less collective distress.¹⁰ Therefore, young individuals are believed to be at greater vulnerability to the negative effects of climate change by virtue of their developing coping capacity.

Although few studies evaluating the impact of climate on mental health exist, some suggest that rising temperature might negatively impact mental health. To date, much of the literature has focused on adult mental health. For example, rising temperature and humidity are associated with increases in emergency department visits for mental health concerns.¹¹ One study showed a positive correlation between emergency department visits and mean surface temperatures.¹¹ Increased rates of emergency department visits occurred during summer months and the rate of mental health concerns increased between 5–10% at higher temperatures (ie, 25°C as opposed to 20°C).¹¹ Furthermore, researchers have proposed an association between humidity and temperature with mental health outcomes.^{12,13} Increasing temperature and vapour pressure were associated with a significant increase of high distress.¹² Humidity modulates the effect of temperature on distress.¹² In high temperatures, humidity augmented distress, whereas in low temperatures, humidity mitigated distress.¹² Additionally, only a few studies have endeavoured to evaluate the effects of climate on mental health specifically in youth. For example, a study surveyed Nicaraguan adolescents after Hurricane Mitch in 1998, and its findings revealed severe levels of both post-traumatic stress and depressive reactions.¹⁴ These results extend the work conducted by Norris and colleagues,⁹ who showed that, by contrast with adults, young individuals were both more susceptible to environmental-related trauma and more likely to become depressed if their family members were injured. Taken together, these studies highlight the unique vulnerabilities and comorbidities of adolescents who



Victor De Swanberg/SPR

Greta Thunberg, 2019

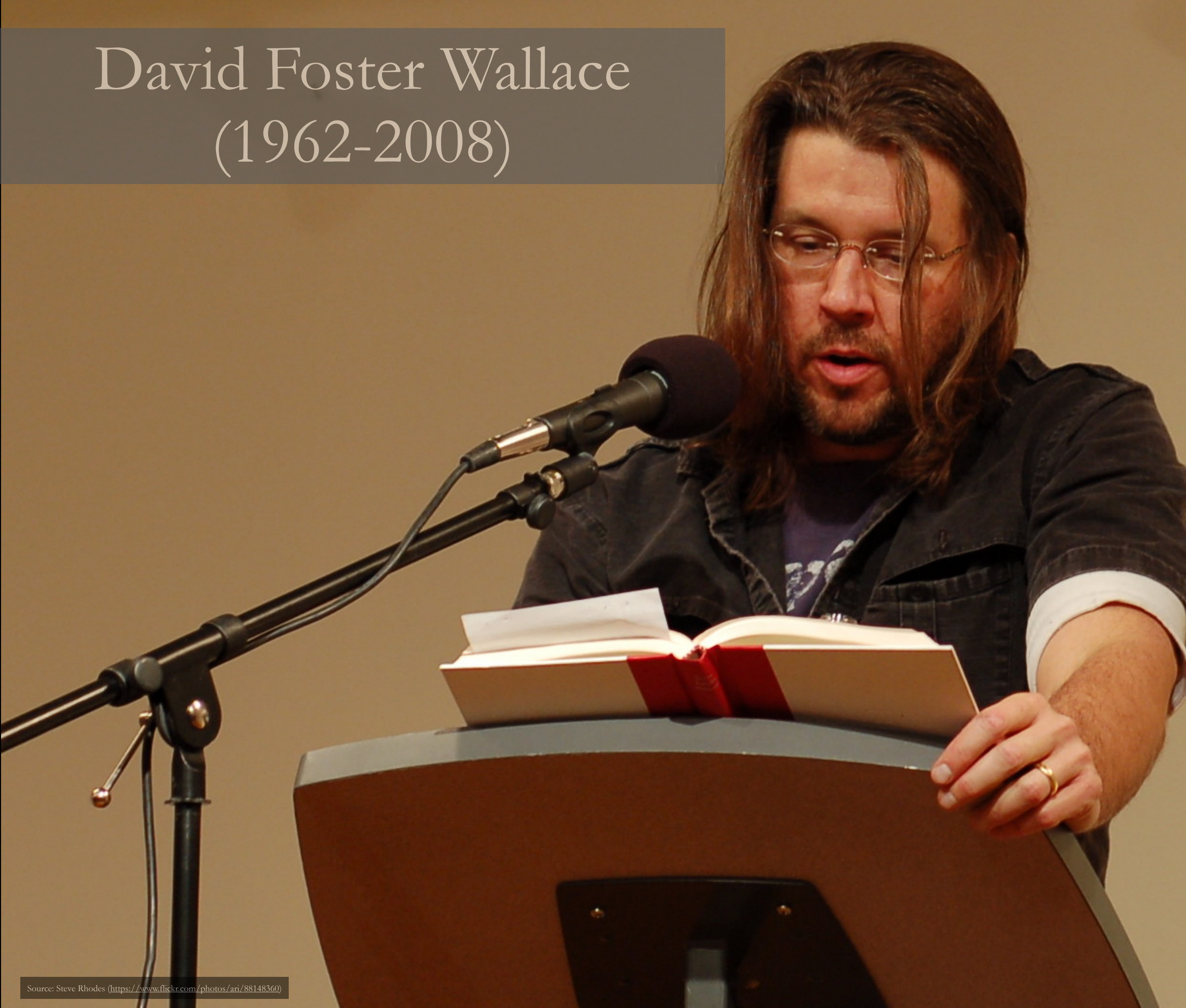


Lecture question #1

What change do you think she is referring to?

Answer on Wattle in Week 1, lecture question 1

David Foster Wallace (1962-2008)

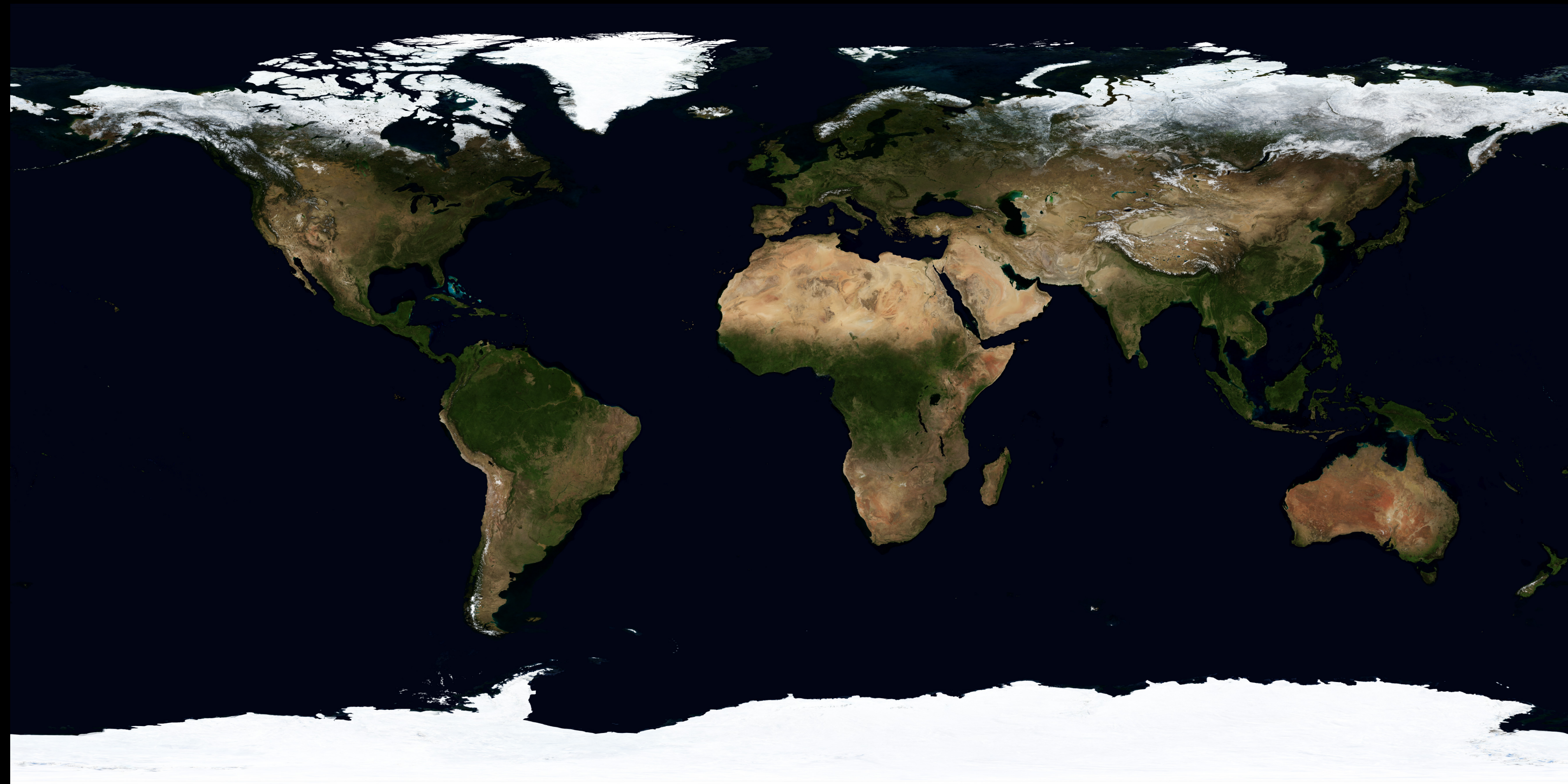


Lecture question #2

Which of these class' topics has the most meaning or reality (as Wallace describes) to you?

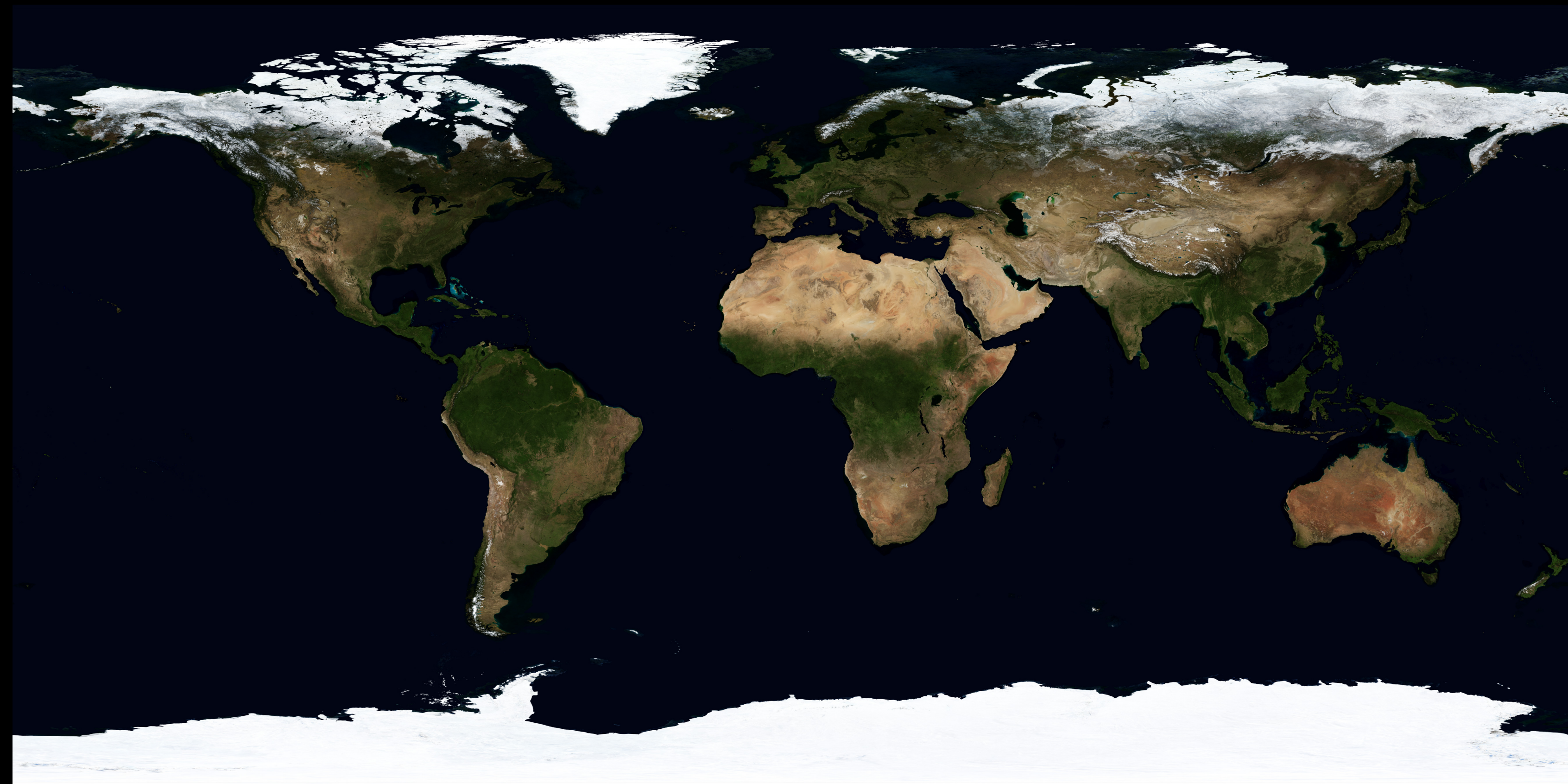
Answer on Wattle in Week 1, lecture question 2

Maps—both literal and metaphorical

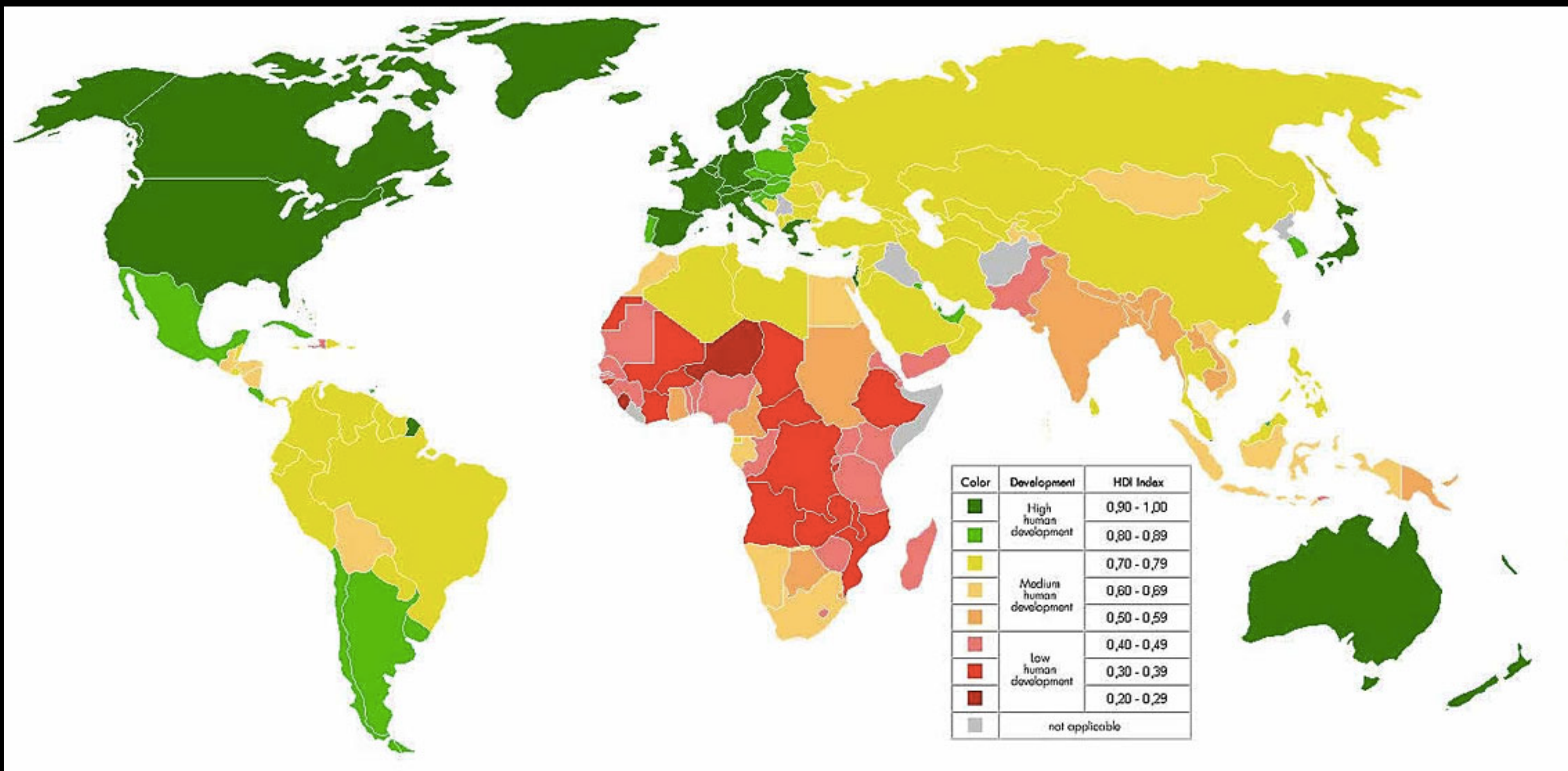


Political Map of the World, June 2019

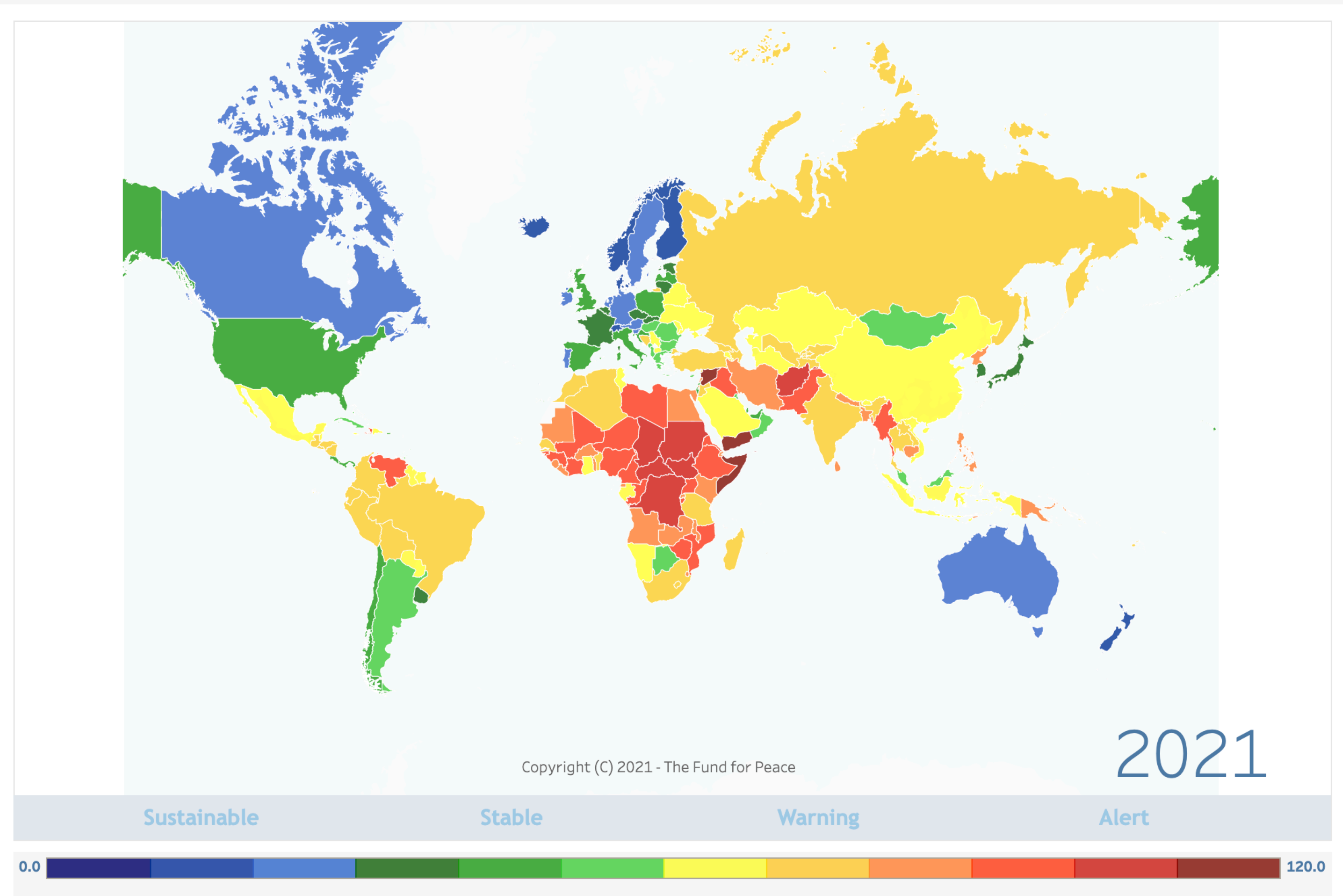




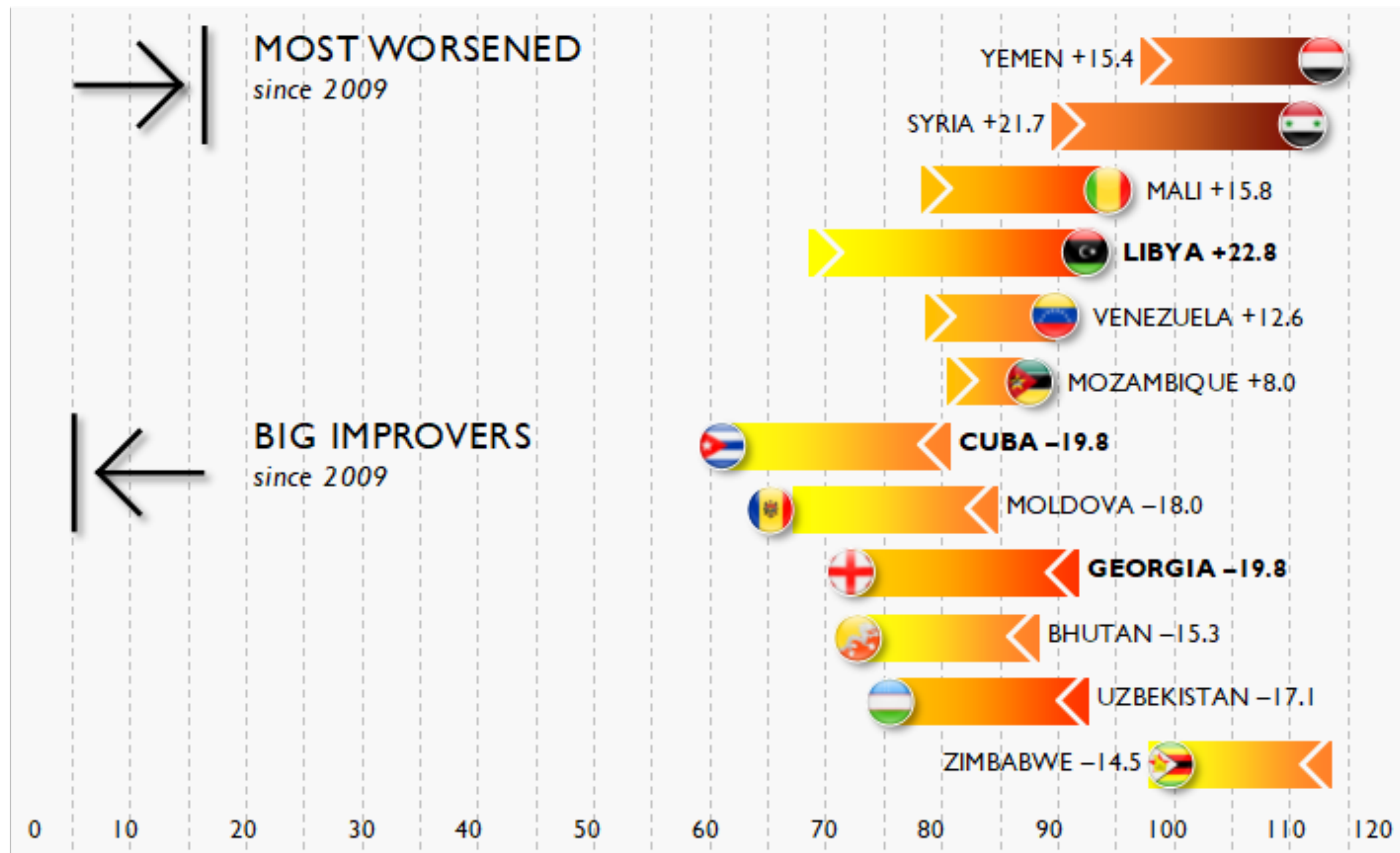
Human Development Index, 2004



Fragility in the World 2021



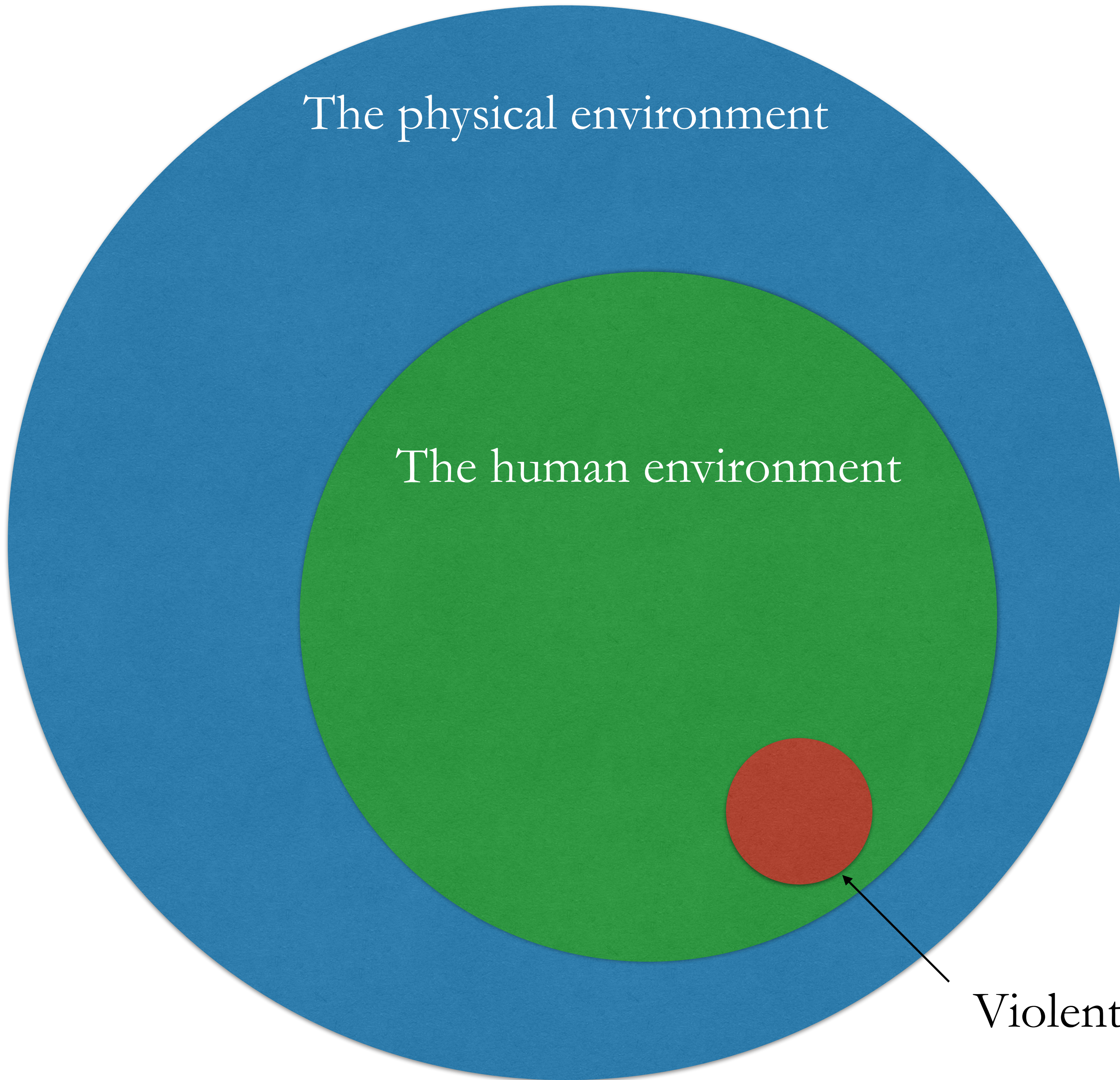
Fragile States Index change, 2009-2019



The physical environment

The human environment

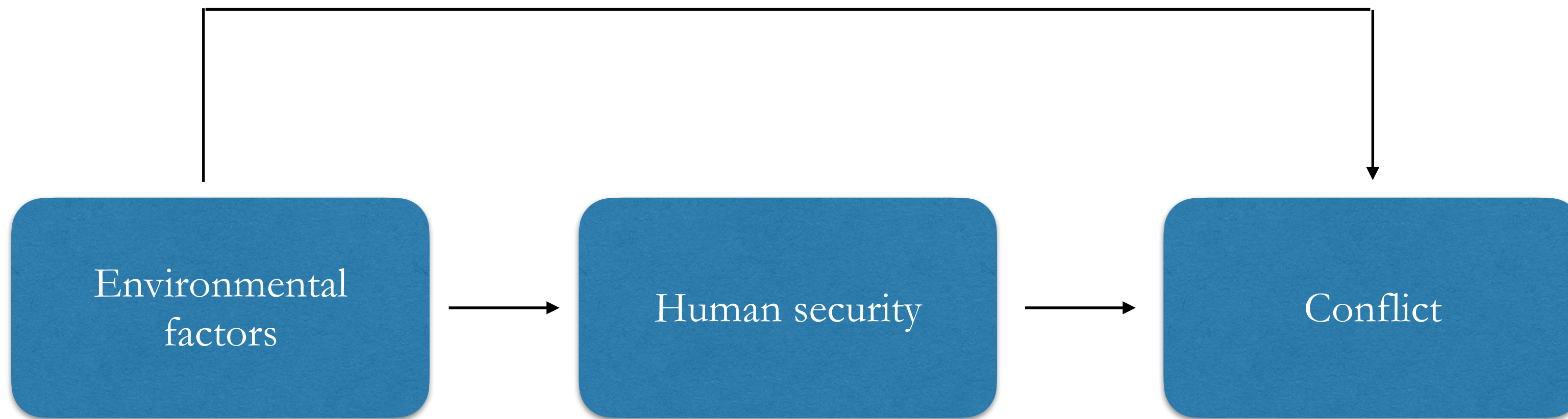
Violent conflict





This class' main questions:

1. How do environmental factors shape human security?
2. What are the direct and indirect means by which environmental phenomena affect violent political conflicts?



Environment

- Geographic features
- Extractable and useful natural resources
- Climate events
- Changes in the three factors above

Human security

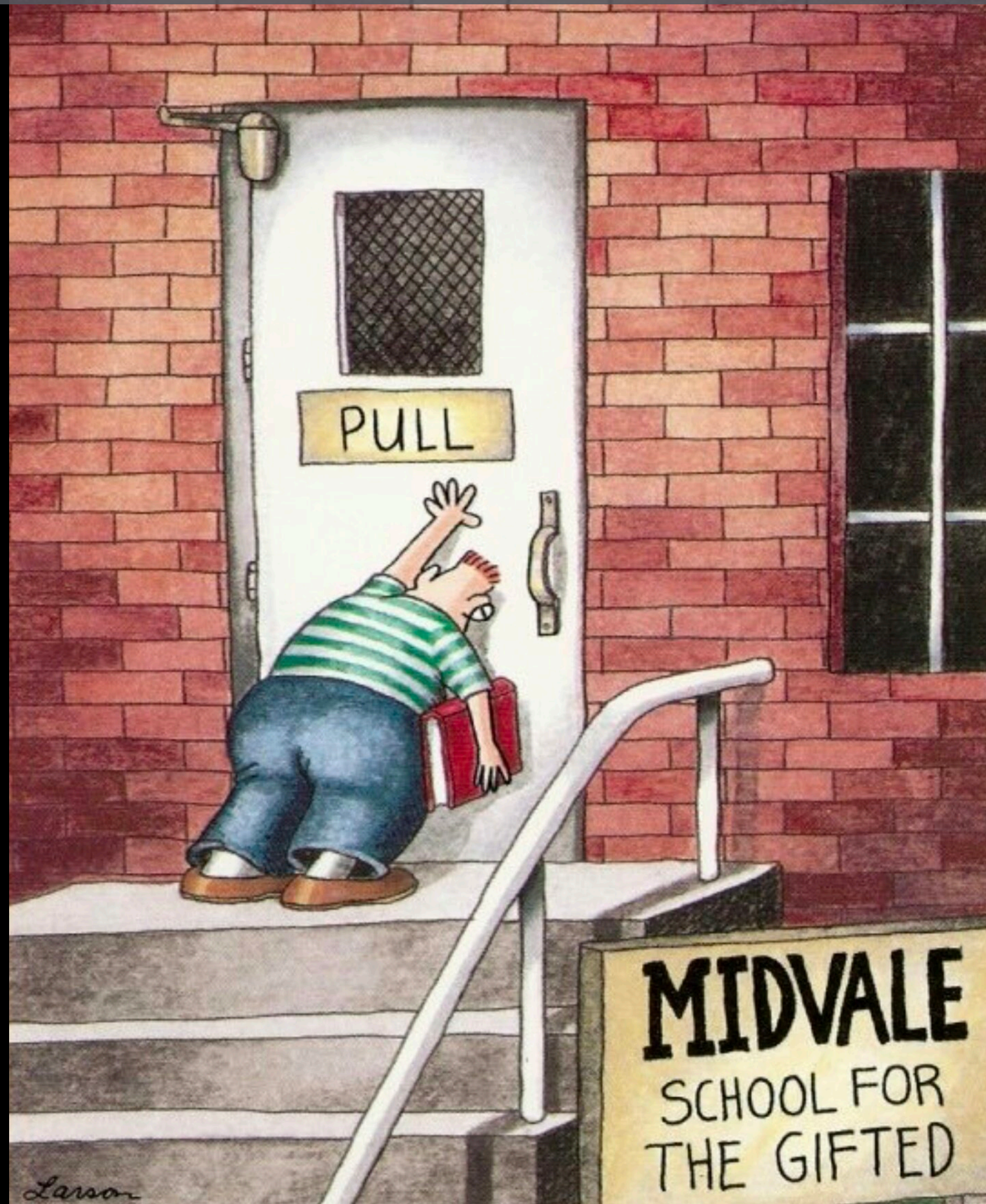
“The condition where people and communities have the capacity to manage **stresses** to their needs, rights, and values.”

(Barnett & Adger 2007: 640)

Conflict

1. “We must define war in terms of **violence**. Not only is war impossible without violence (except of course in the metaphorical sense), but we consider the taking of human life the primary and dominant characteristic of war.”
(Small & Singer 1982: 205-206)
2. A **threshold** of battle-related fatalities of troops in combat
3. The status of war **participants**

How political scientists draw their mental maps



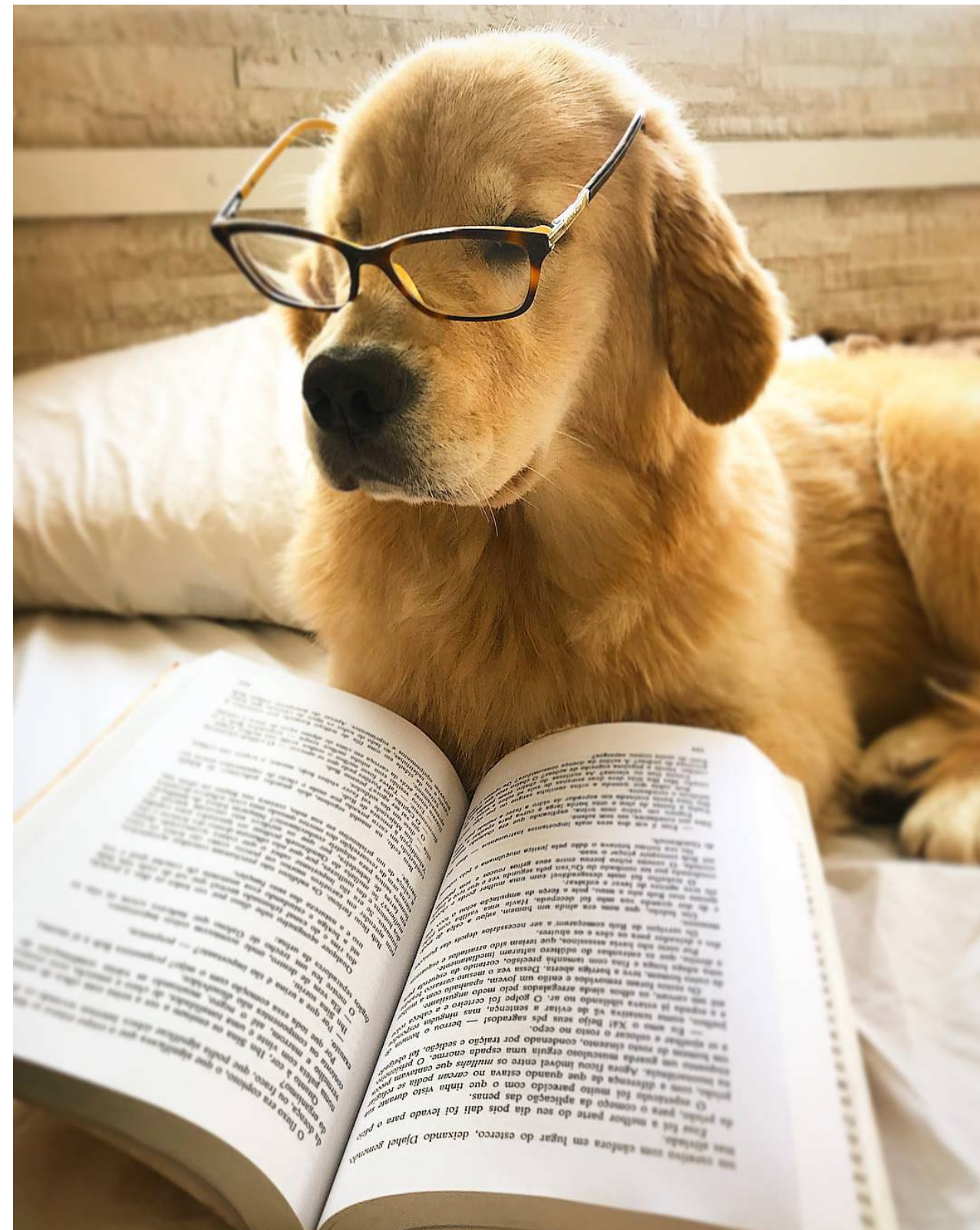
The four goals of political science research

Description

Explanation

Prediction

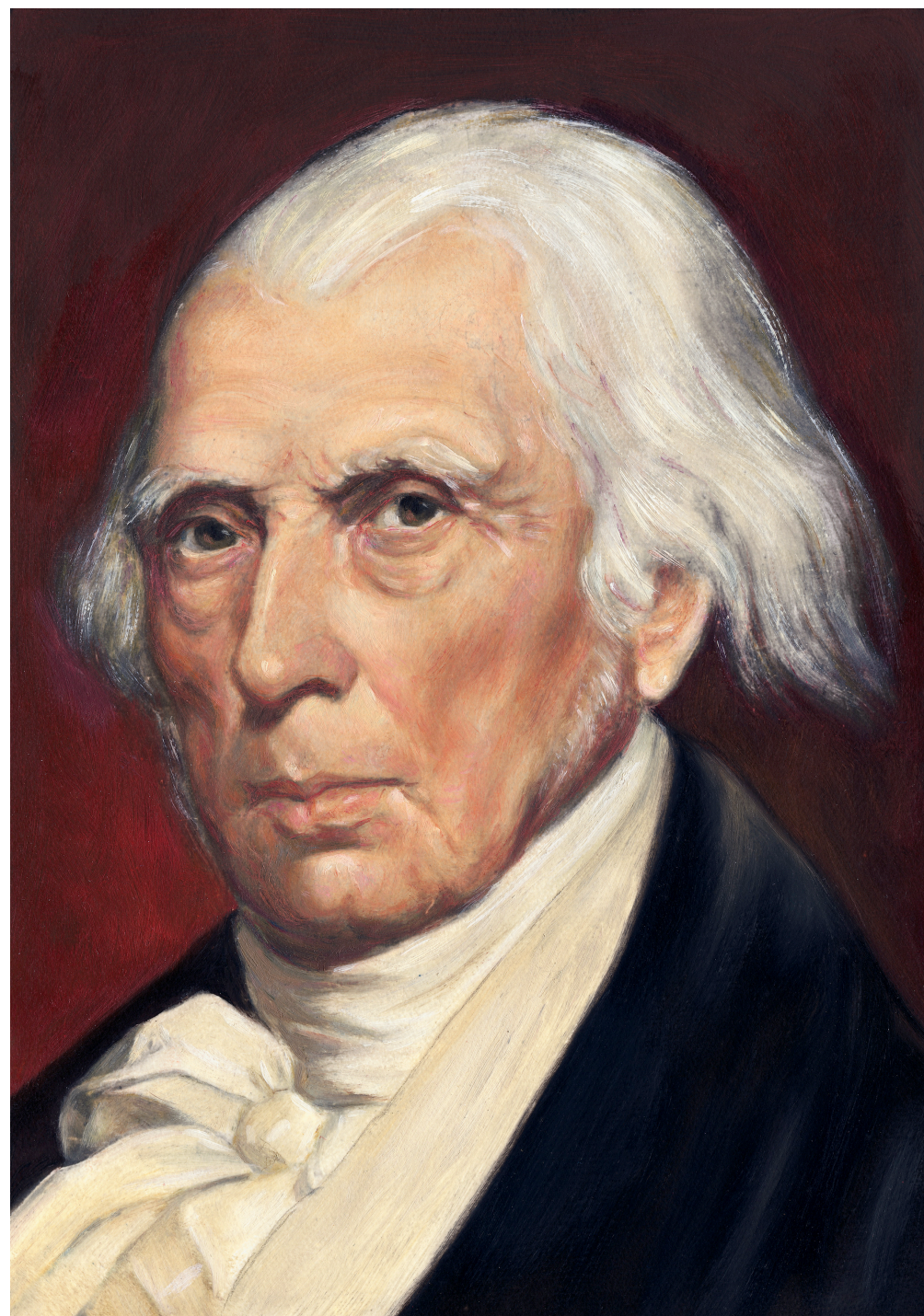
Policy



“Nothing can be more fallacious than to found our political calculations on arithmetical principles.”

— Federalist #55 (1788, James Madison)

(<http://www.constitution.org/fed/federa55.htm>)





America's Choice 2012

Nate Silver gets a big boost from the election

by Chris Isidore @CNNGMoney

🕒 November 7, 2012: 12:37 PM ET

👍 Recommend 2.4K



Fivethirtyeight.com's Nate Silver was a big winner on election night.

Across the media and twittersphere Tuesday night, Nate Silver was a clear winner in the 2012 presidential election. The polling data guru, who runs the fivethirtyeight.com blog for the *New York Times*, saw sales of his book spike as a result.

Social Surge -



Search for Job

Partner Offers

The Sudden, Shocking Fall of Nate Silver

By Jason Rhode | July 13, 2016 | 9:59am

Photo by Astrid Stawiarz/Getty

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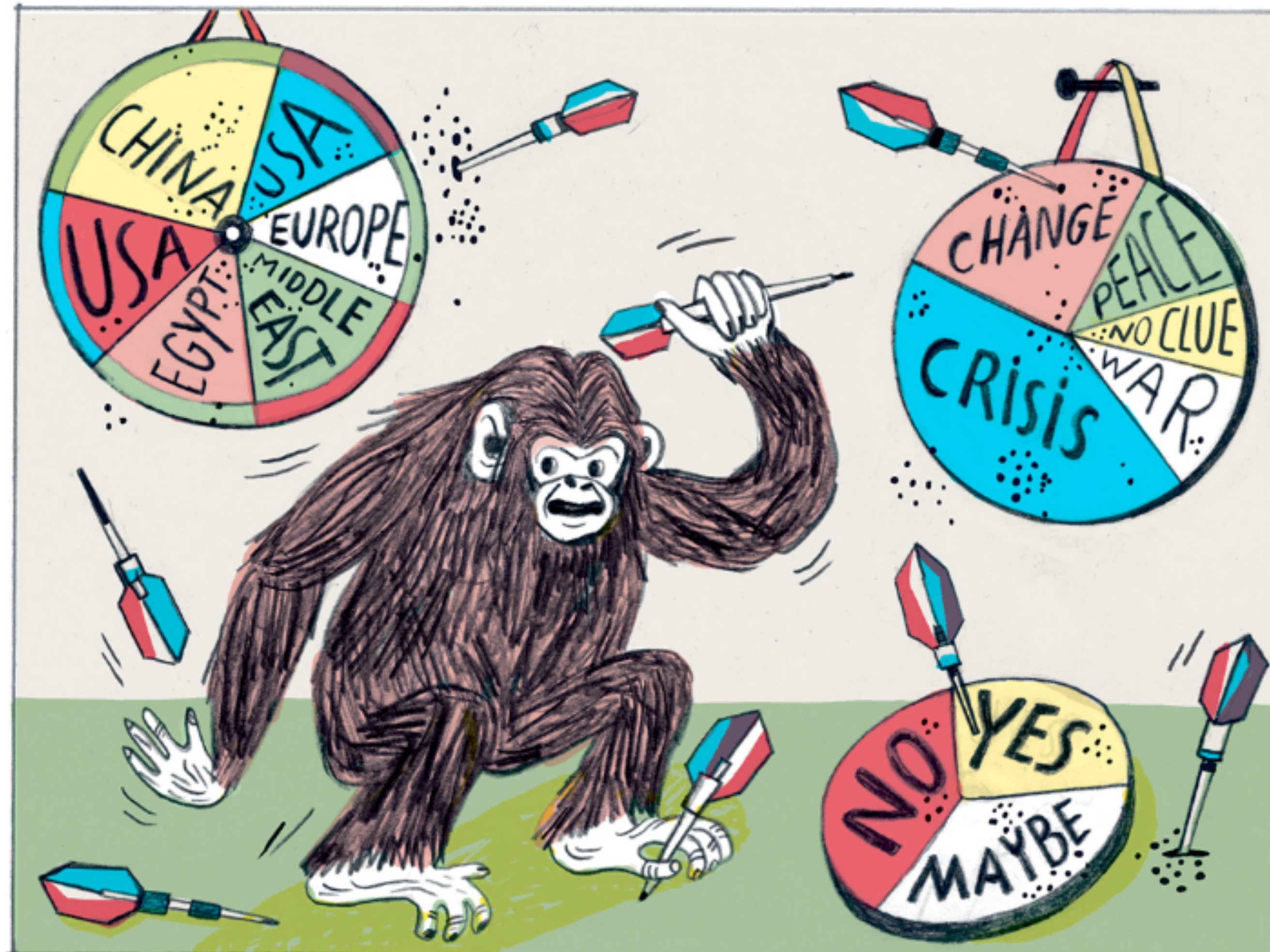
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[✉](#) Email



Political Scientists Are Lousy Forecasters

By JACQUELINE STEVENS JUNE 23, 2012





NassimNicholasTaleb
@nntaleb

A remark: Jay Ulfedler's [@dtchimp](#) "mathematical model" to predict exudes, smells, reeks, of bu

Jay Ulfelder [@dtchimp](#)

Turkey Was an Unlikely Victim of an Equally Unlikely Coup [nyti.ms/29MWhSz](#) With thoughts from [@brianklaas](#), [@naunihalpublic](#), & me.

17/07/2016 10:32 PM

25 RETWEETS 61 LIKES

Lecture question #3

If you were a modern-day forecasting Cassandra, what political outcome would you look at first?

II. Course overview



Course outline

Section 1: Defining terms, actors, and interests

Wk 1: Intro,
course overview,
and conflict

Wk 2: Economic
development and
instability

Wk 3: Political
institutions and
instability

Wk 4:
Environmental
change and
scarcity

Section 2: Causes

Wk 5:
Population

Wk 6: Migration

Wk 7: Food

Wk 8: Water

Wk 9: Natural
resources

Wk 10: Natural
disasters

Section 3: Responses

Wk 11:
Domestic
responses

Wk 12:
International
cooperation

Assessment options

	Option #1	Option #2	Option #3	Option #4
Participation	10%	10%	10%	10%
Literature review (3/4/22)	30%	40% (due week 8)	25%	40% (due week 8)
Proposal (8/5/22)	10%		10%	
Final essay (3/6/22)	50%	50%	50%	50%
Lecture questions	0%	0%	5%	5%

How to read quantitative articles

- Look for **theoretical** contribution and substantive **empirical** effects
- These authors often follow the kind of **structure** that I recommend you take in your qualitative final essay:
 - Introduction
 - Literature review
 - Argument, theory, hypotheses
 - Research design
 - Discussion of results
 - Robustness checks
 - Conclusions, policy implications, areas for future research

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Dr Richard W. Frank

Senior Lecturer

College of Arts and Social Sciences

E: richard.frank@anu.edu.au[+ Flag this profile](#)

Jump to: [Biography](#) | [Student projects](#) | [Publications](#) | [Projects and Grants](#) | [Related websites](#)

Areas of expertise

- Political Science
- International Relations
- Comparative Government And Politics

Research interests

Civil conflict, election violence, human trafficking, and peace studies

Biography

Dr Frank's research centers on the domestic effects of international politics and the causes of political violence and human trafficking.

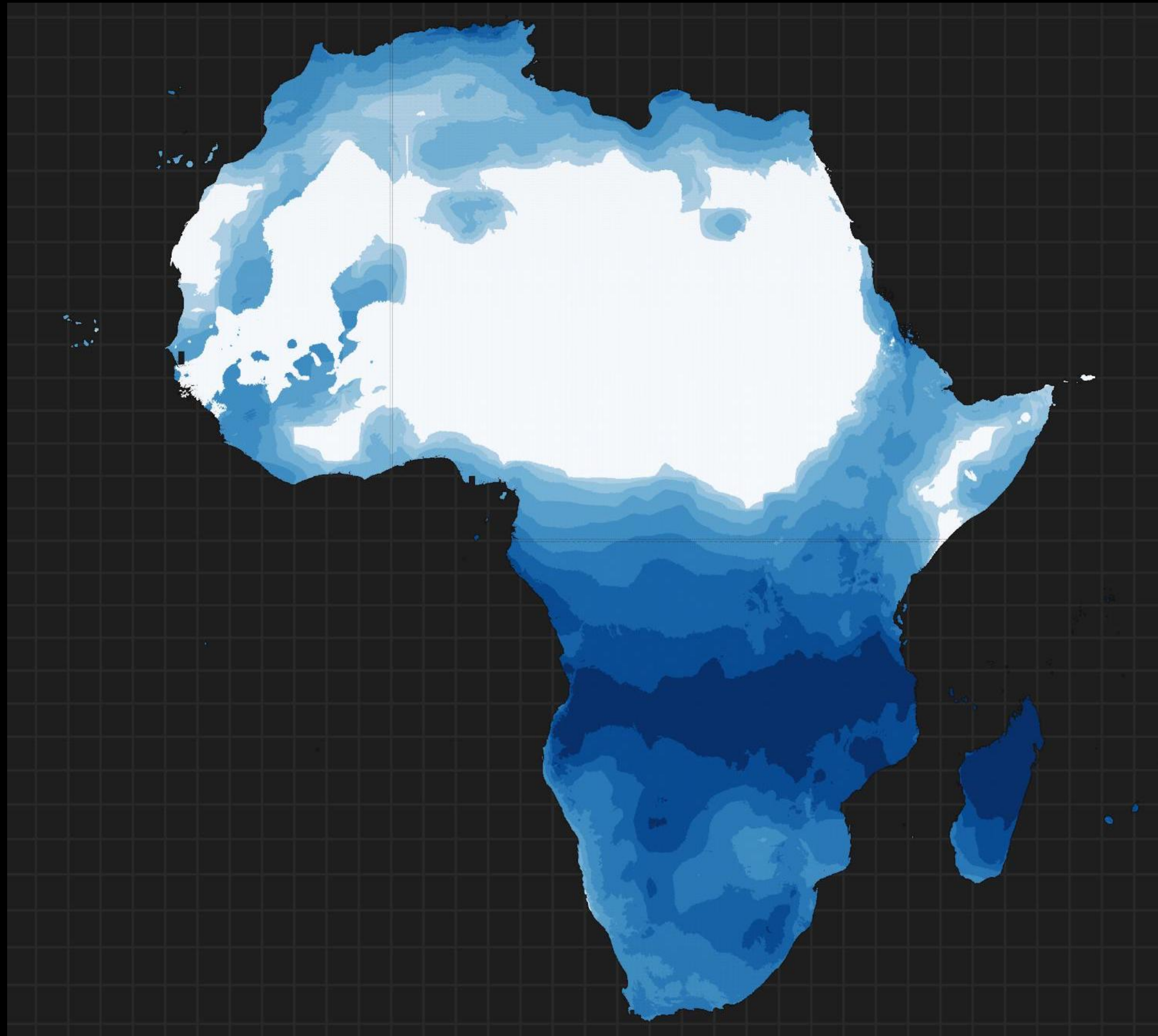
Available student projects

Dr. Frank is keen to supervise PhD and honours theses on theoretically and normatively important topics related to his research interests (see above). Potential students should email Dr. Frank with a draft research proposal.

For guidance in putting together a proposal, please see <https://www.anu.edu.au/students/academic-skills/research-writing/research-proposals>.

Precipitation

2016-March



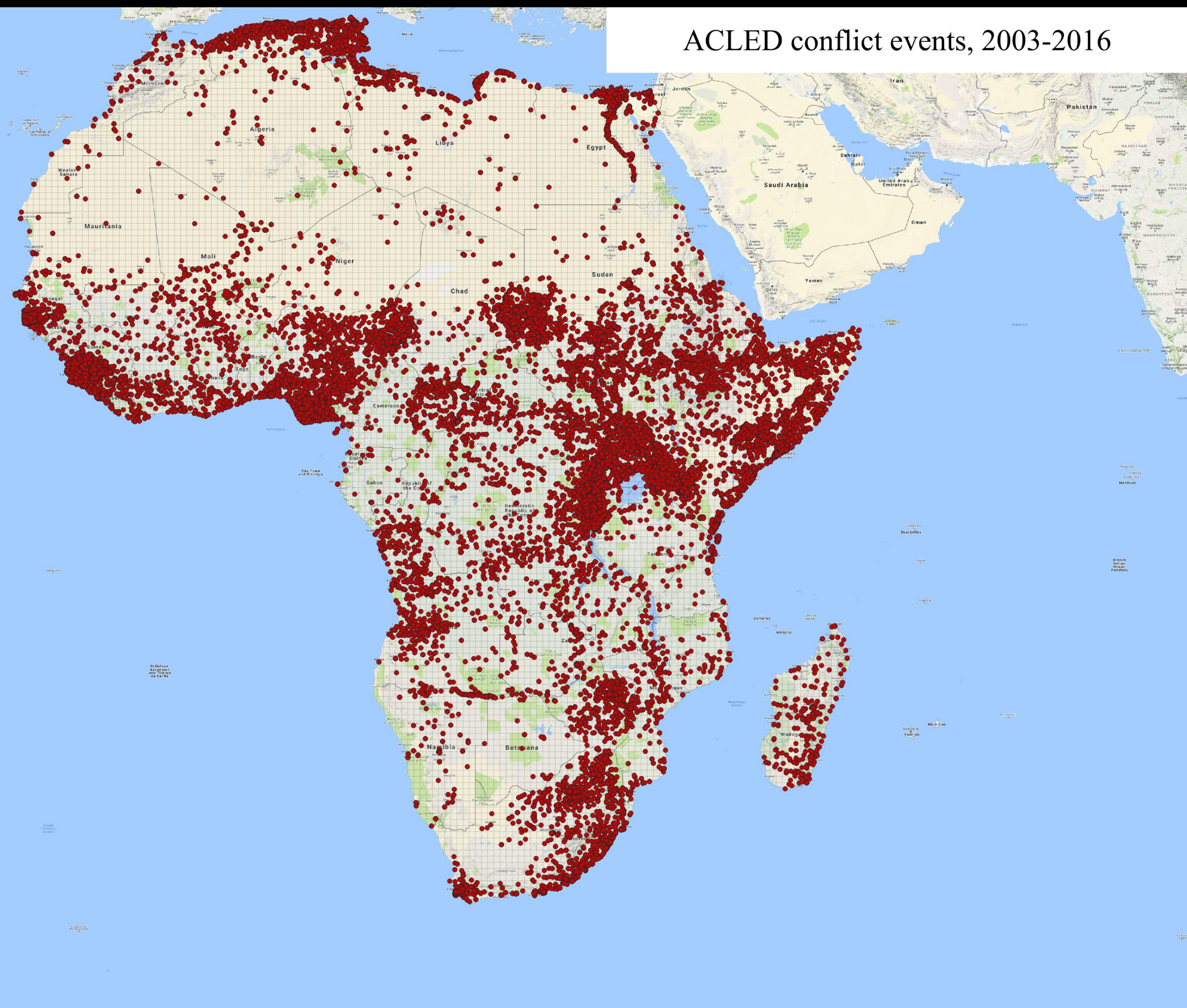
Data source: TerraClimate

FDI projects, 2003-2017



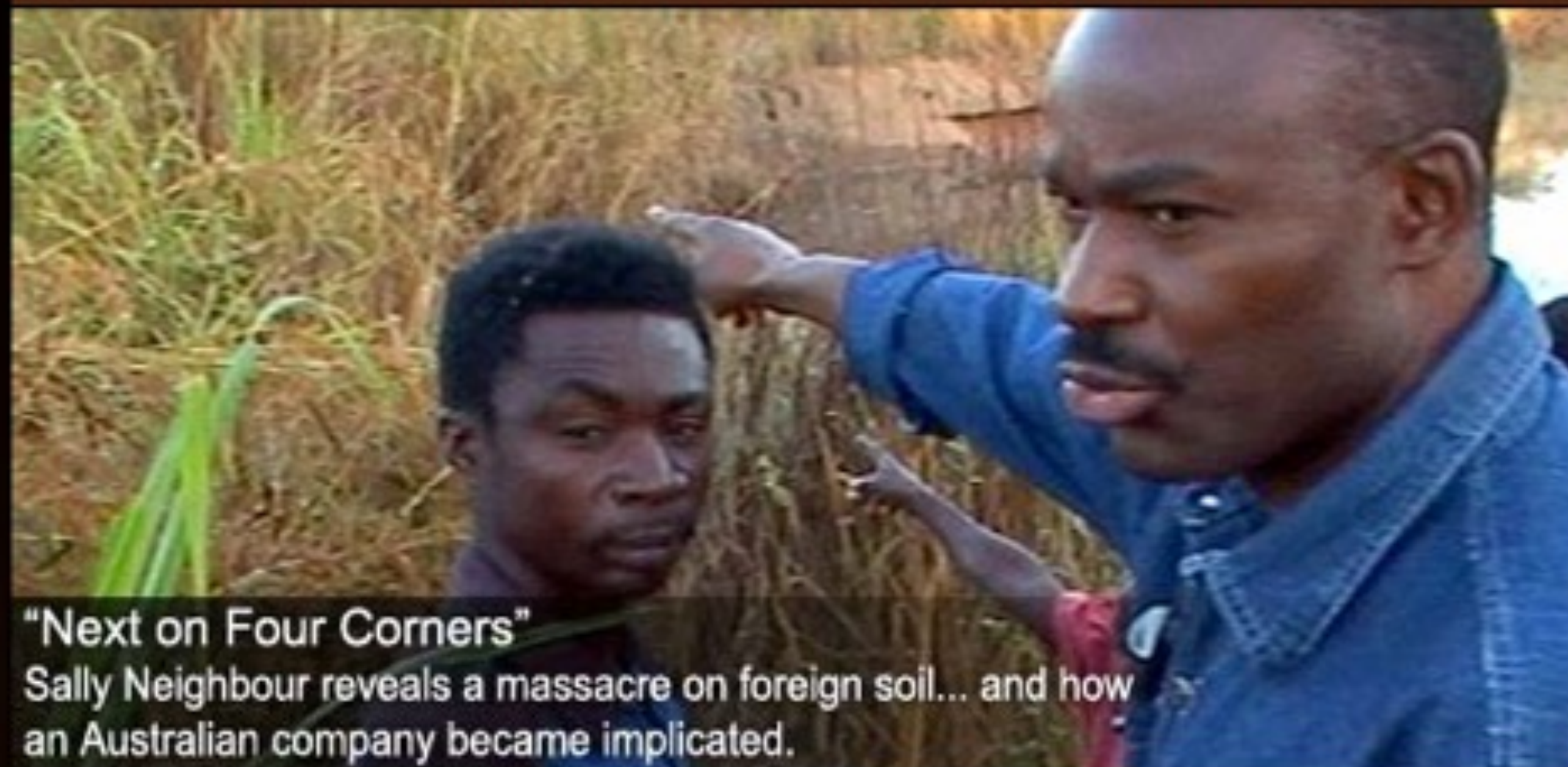
Data source: FT Markets

ACLED conflict events, 2003-2016



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"Next on Four Corners"

Sally Neighbour reveals a massacre on foreign soil... and how an Australian company became implicated.

The Kilwa Incident

Reporter: Sally Neighbour

Broadcast: 06/06/2005

Four Corners reveals that an Australian mining company has been implicated in a massacre of at least 100 people.

According to eyewitness accounts and investigation reports obtained by Four Corners, dozens of people, mostly innocent civilians, were summarily executed by soldiers with the logistical assistance of the Australian company.

The Kilwa Incident

Read the full report on the Kilwa Incident, which covers the role played by the Australian mining company in the 2004. The program was first broadcast in 2005.





Transcript

Read the transcript of Sally Neighbour's "The Kilwa Incident".

Background

BREAKING NEWS

[The body of a man missing in floodwaters in far north Queensland has been found](#)

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Aust mining company cleared of war crimes charges

Posted 28 Jun 2007, 10:30pm

A military court in Democratic Republic of Congo has acquitted three former employees of Australian mining company Anvil Mining Ltd of complicity in war crimes by government soldiers in 2004.

MAP: [Congo, The Democratic Republic Of The](#)



"All of those accused of war crimes, including the former Anvil mining agents have been acquitted," the military tribunal's president, Colonel Joseph Mokako, said.

"The charges of war crimes were found to have been unfounded."

Canadian Pierre Mercier and South Africans Peter Van Niekerk and Cedric Kirsten had been accused of wilfully offering logistical assistance to Congolese soldiers during a shortlived armed uprising in the mineral-rich Katanga province.

A UN human rights investigation found that scores of civilians were massacred in the town of Kilwa, near the south-eastern border with Zambia, when government forces launched a counterattack to retake the town after it had been seized by a group of 10 ill-equipped rebels in October 2004.

Anvil runs a nearby silver and copper mine and the company's trucks and planes were used by the army during the operation.

Anvil said its vehicles were requisitioned by the military and it had no choice but to hand them over.

All nine Congolese soldiers also on trial before the military tribunal were acquitted of war crimes. However two officers received life in prison for the killing of civilians, and two other soldiers received shorter sentences for lesser crimes.

Topics: [courts-and-trials](#), [mining-industry](#), [law-crime-and-justice](#), [international-law](#), [unrest-conflict-and-war](#), [congo-the-democratic-republic-of-the](#)

III. Conflict, what is it and why does it happen?

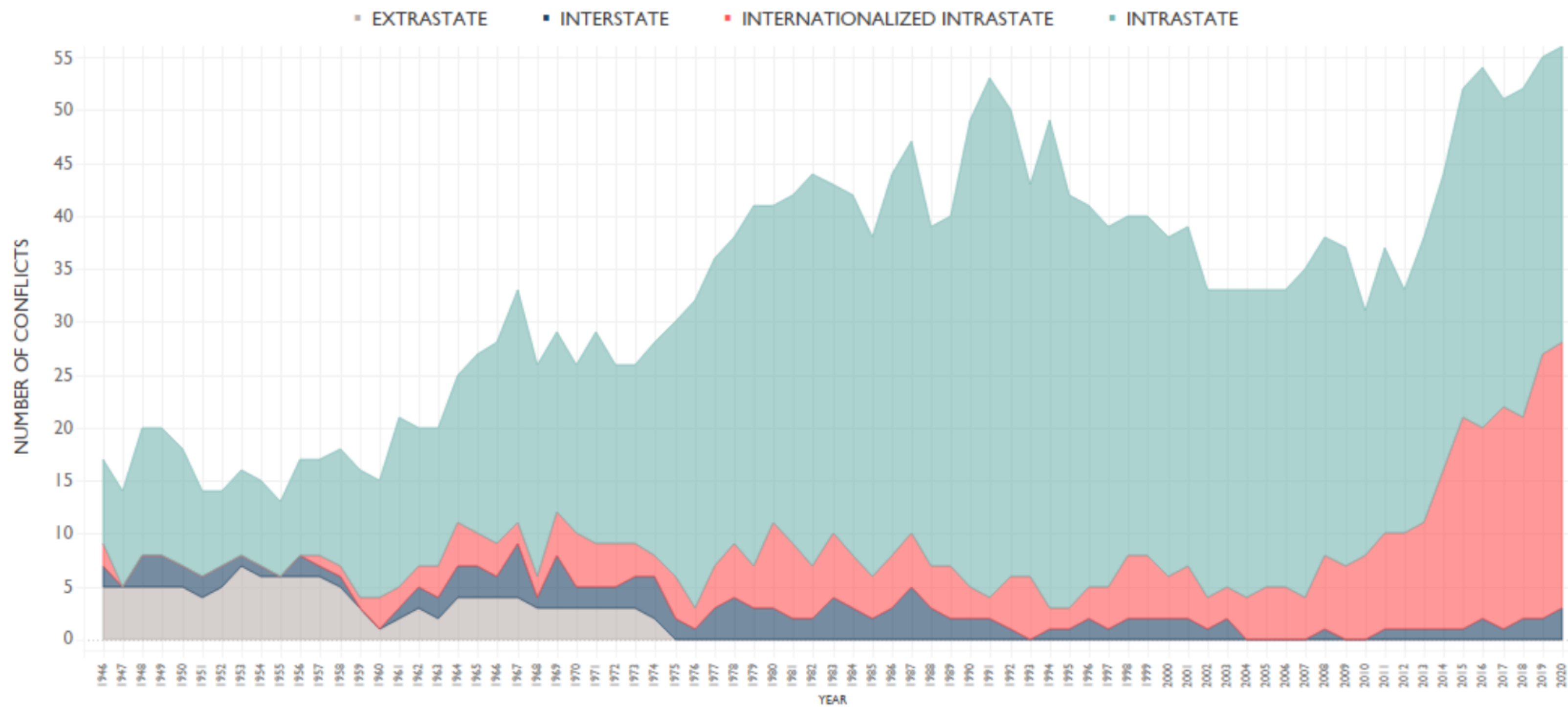


Francisco Goya. 1814. *The Third of May 1808*. Prado Museum

Fundamental questions about conflict

- Why do **states** and **non-state actors** use violence?
- Why do **individuals** chose violence?

ARMED CONFLICT BY TYPE, 1946-2020



Based on UCDP 21.1 data



UPPSALA
UNIVERSITET

UCDP
Uppsala Conflict Data Program
ucdp.uu.se

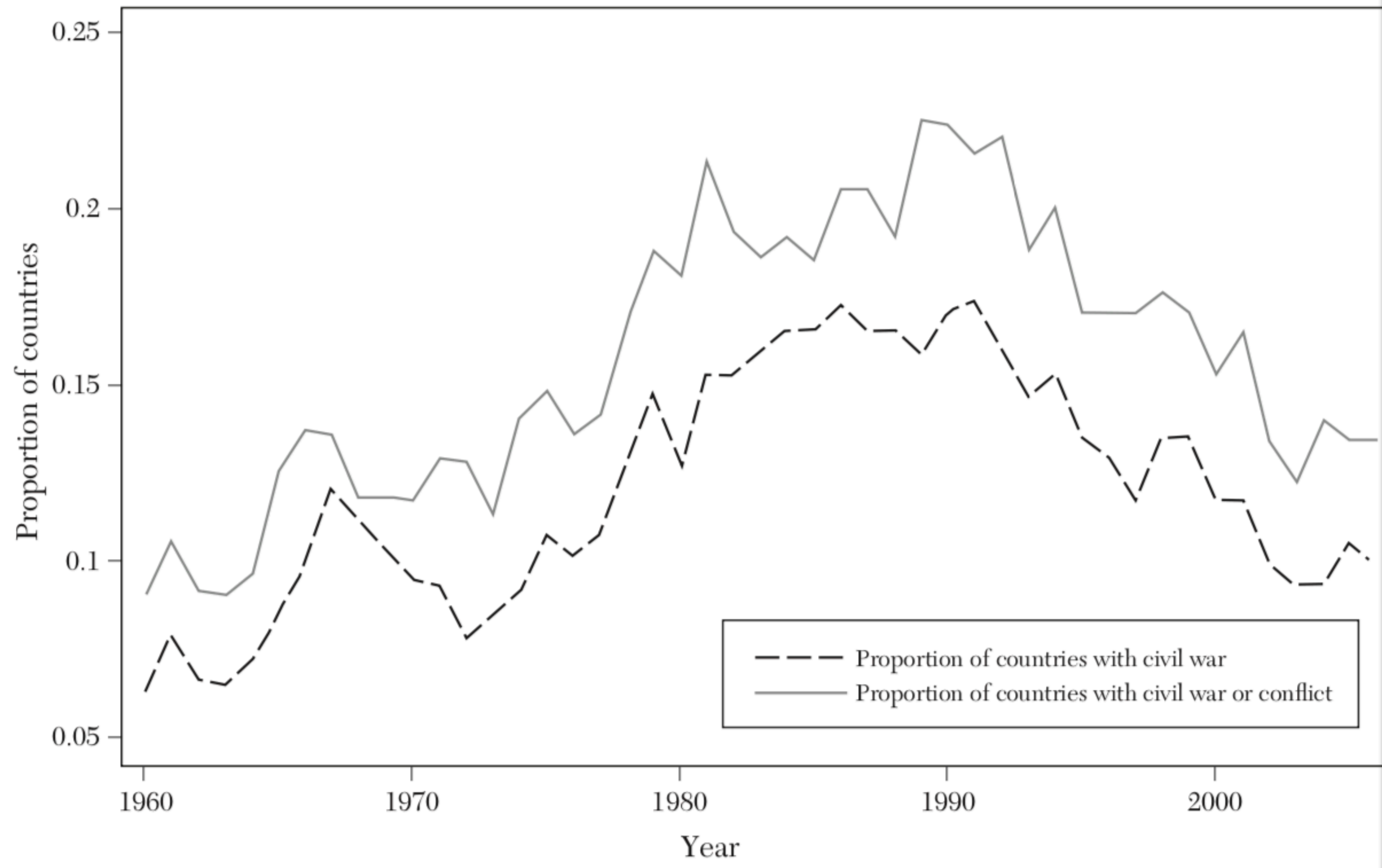
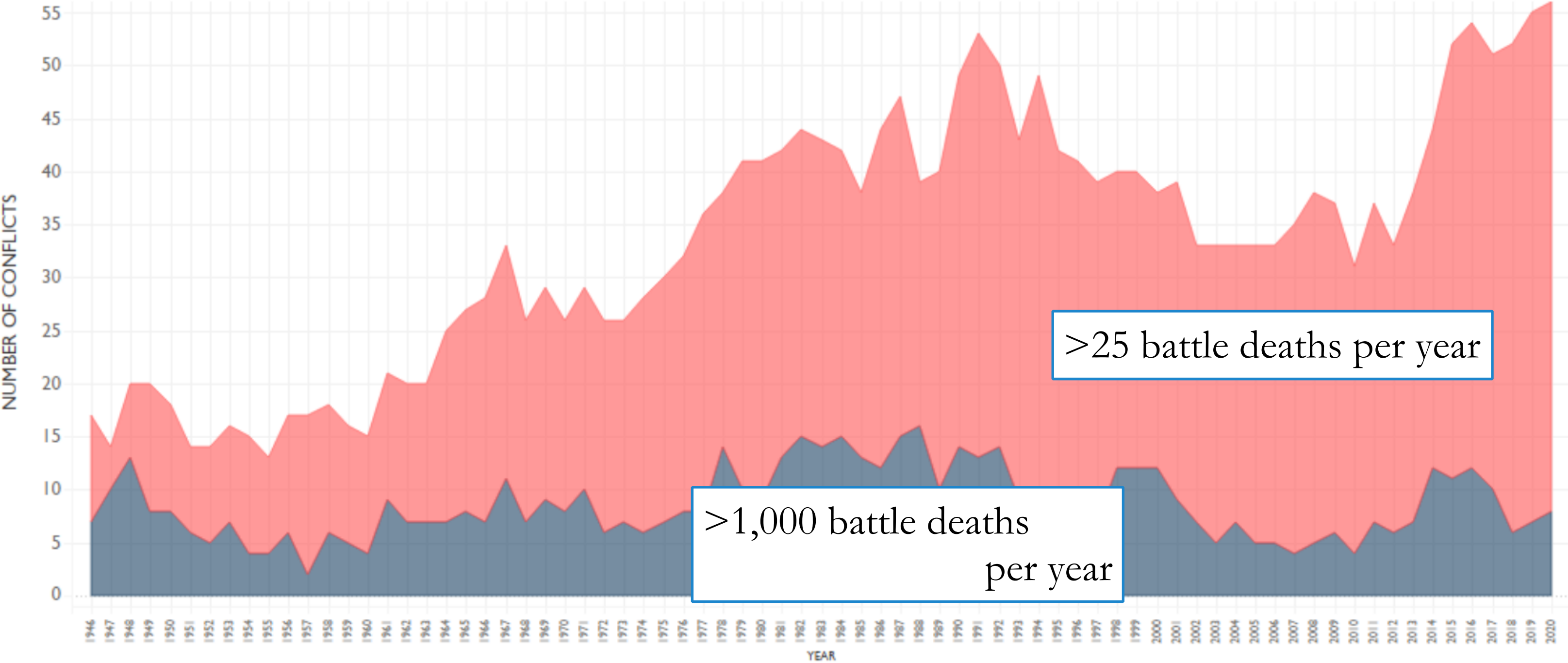


Figure 2: Proportion of Countries with an Active Civil War or Civil Conflict, 1960–2006

Sources: Data based on UCDB/PRIO armed conflict database (Gleditsch et al. 2002). Civil wars are those

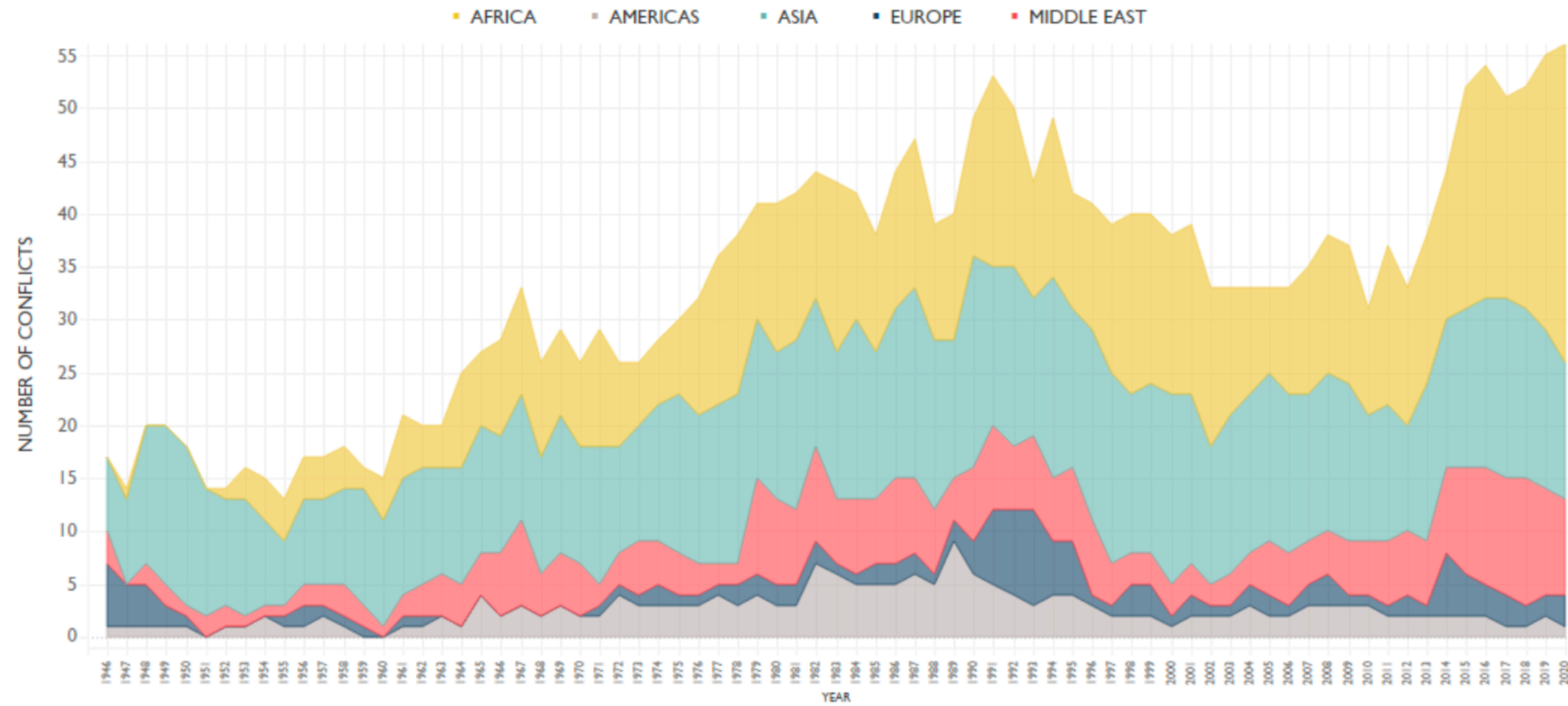
ARMED CONFLICT BY INTENSITY, 1946-2020

WAR MINOR



Based on UCDP 21.1 data

ARMED CONFLICT BY REGION, 1946-2020

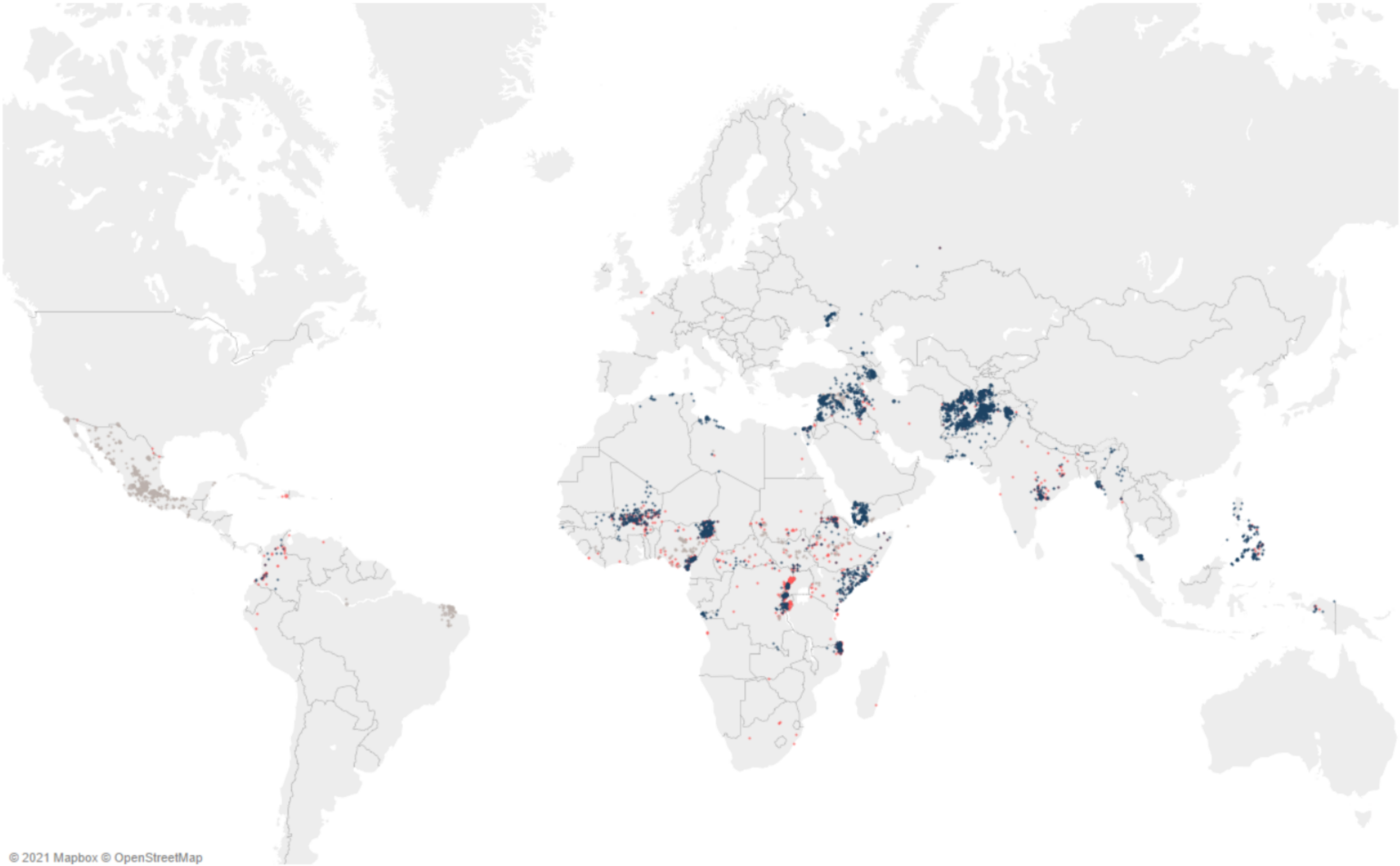


Based on UCDP 21.1 data

Fatal events around the world in 2020 by type of violence

Each point represents the location of conflict events and the circle sizes vary depending on the sum of battle-related deaths

● State-based violence ● Non-state violence ● One-sided violence

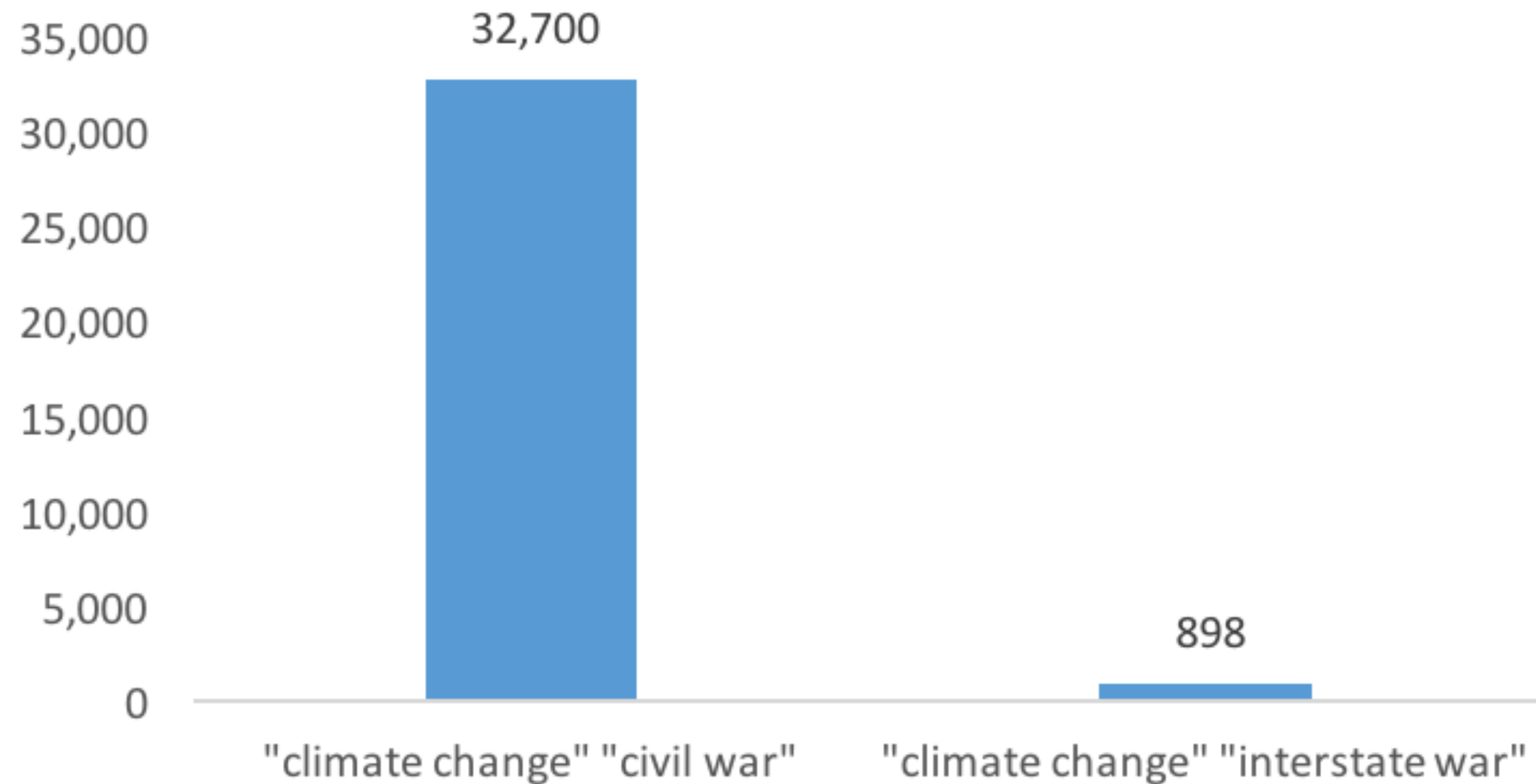


© 2021 Mapbox © OpenStreetMap



UCDP
Uppsala Conflict Data Program
ucdp.uu.se

Google Scholar Search Results, August 23, 2016



Cullen Hendrix @cullenhendrix · Aug 23

Why so little interest in [#climatechange](#) and interstate war? [@raulpacheco](#) [@sbmitche](#) [@tedmiguel](#) [@nilspg](#)



6



5



Barnett and Adger (2007: 643)

Table 1
The relationship between determinants of human insecurity, violent conflict and climate change

Factors affecting violent conflict	Processes which climate change could affect/exacerbate
Vulnerable livelihoods	Climate change is likely to cause widespread impacts on water availability, coastal regions, agriculture, extreme events and diseases. The impacts on livelihoods will be more significant in sectors of the population with high resource-dependency, and in more environmentally and socially marginalised areas. Some of these climate driven outcomes are long term and chronic (such as declining productivity of agricultural land), while others are episodic (such as floods). These impacts on livelihoods will be widespread both in developing and developed countries.
Poverty (relative/chronic/transitory)	Poverty (and particularly relative deprivation) is affected by the spatial differentiation of climate impacts and the sensitivity of places to them. Climate change may directly increase absolute, relative, and transient poverty by undermining access to natural capital. It may indirectly increase poverty through its effects on resource sectors and the ability of governments to provide social safety nets. Stresses from climate change will differentially affect those made vulnerable by political-economic processes such as liberalisation of markets for agricultural commodities.
Weak states	The impacts of climate change are likely to increase the costs of providing public infrastructure such as water resources, and services such as education, and may decrease government revenues. So climate change may decrease the ability of states to create opportunities and provide important freedoms for citizens as well as decrease the capacity of government agencies to adapt and respond to climate change itself.
Migration	Migration may be one response of people whose livelihoods are undermined by climate change. However, climate is unlikely to be the sole, or even the most important ‘push’ factor in migration decisions. Yet large-scale movements of people may increase the risk of conflict in host communities.

How do we reconcile...

- The relative importance of different **causes** of conflict?
- Different **typologies** of conflict?
- Different **interpretations** of key variables? (Blattman and Miguel 2010: 23)

Homer Dixon, Thomas F. 1999. *Environment, Scarcity, and Violence*. Princeton: Princeton University Press: 134.

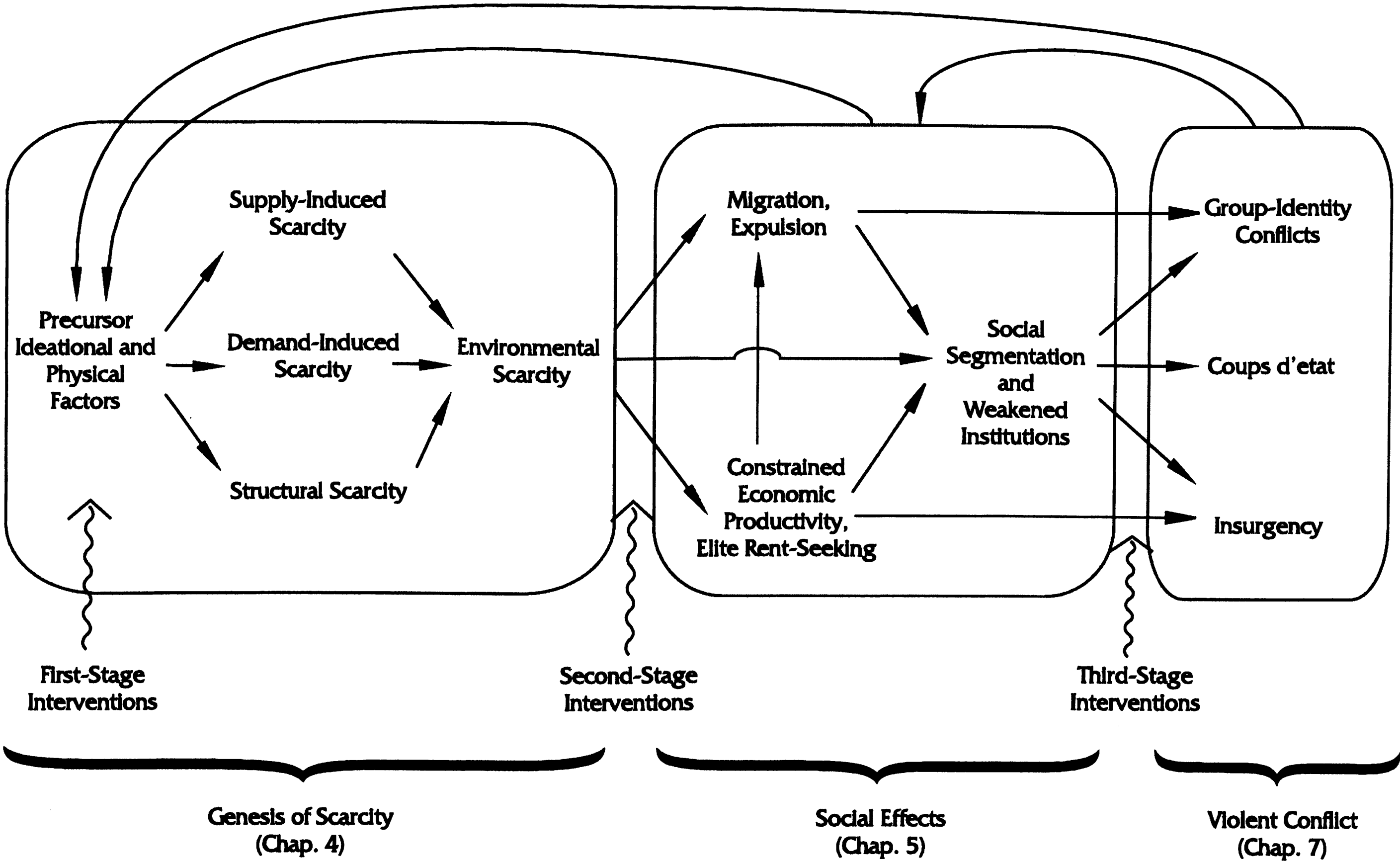


Figure 7.1. The Core Model of the Causal Links between Environmental Scarcity and Violence

Course logistics





Search Twitter



Donald J. Trump  @realDonaldTrump · Jul 10

Now that we have witnessed it on a large scale basis, and firsthand, Virtual Learning has proven to be TERRIBLE compared to In School, or On Campus, Learning. Not even close! Schools must be open in the Fall. If not open, why would the Federal Government give Funding? It won't!!!

 49.3K  49.2K  191.9K 

Replies



Dr. David Samadi  @drdavidsamadi · Jul 10

Replying to [@realDonaldTrump](#)

I fully agree that schools must open in the fall. We have no scientific or medical reason to not reopen. School age children are not being affected by this virus. We need to keep in mind how many children are being adversely affected by not having any social interaction.

 3.1K  2.5K  7.7K 



Scott Dworkin  @funder · Jul 10

Replying to [@realDonaldTrump](#)

You have no plan to safely reopen schools, because there is no way to do it without testing every kid every day before they enter the building. Tweeting "open schools" is not a plan. And blackmailing schools to open like this is a new low for you. This is pathetic.

 384  2.1K  14.1K 

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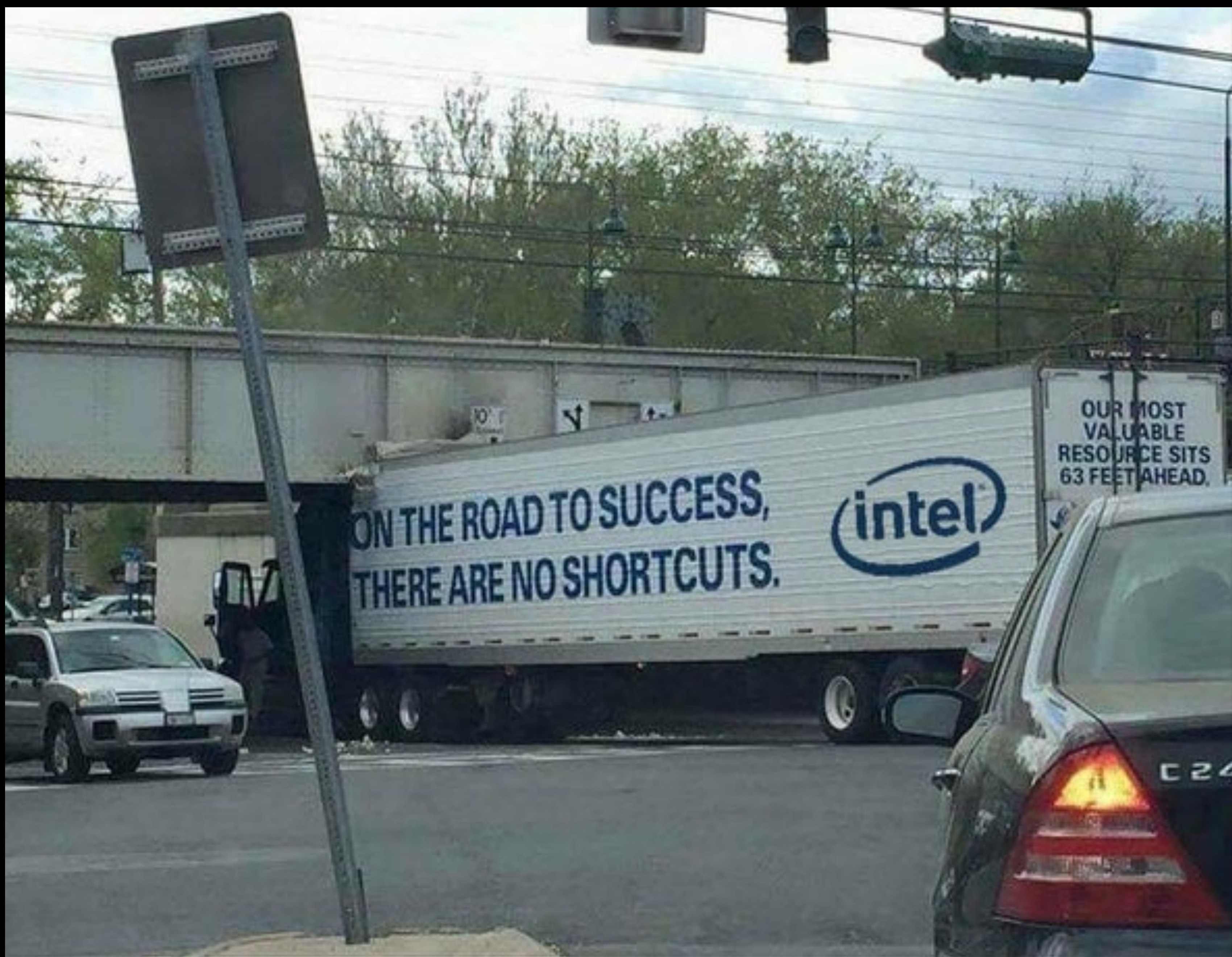
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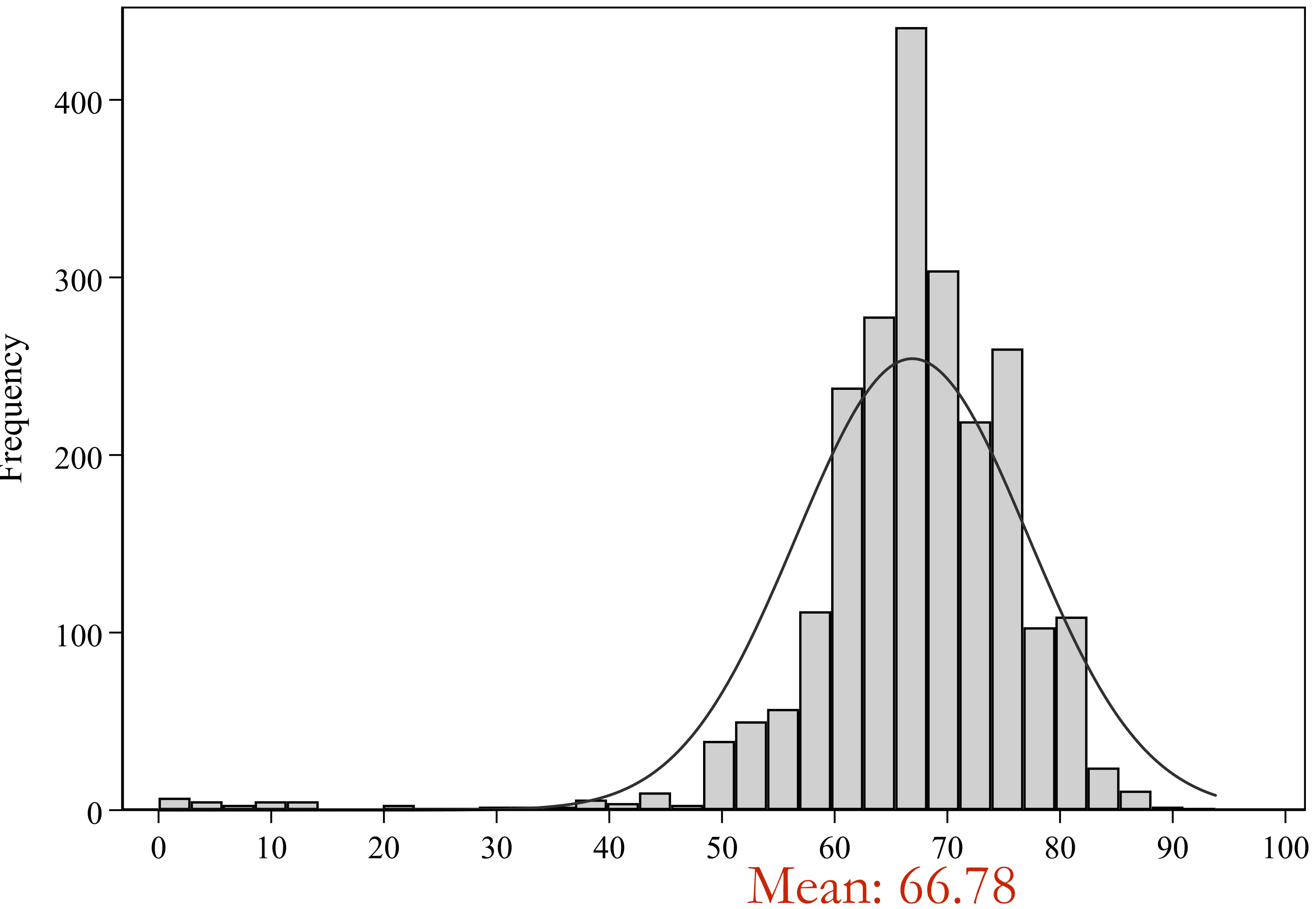
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4



Overall grade distribution, 2,770 students, 2015-2018



Question text	Valid responses	Agree responses	% agreement	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5	Average
I could see a clear connection between the learning outcomes, activities and the assessment tasks in this course	28	27	96%		1		6	21	4
The workload was appropriate for the level of this course	28	21	75%	1	4	2	4	17	4
My learning in this course was supported by feedback	28	24	86%	1	1	2	6	18	4
This course developed my ability to think	28	27	96%	1			7	20	4
Overall, this course was a valuable learning experience	28	26	93%	1		1	6	20	4

I need two student representatives for this class.

I'll take the first two students to email me **after 1pm on Wednesday**.

Dirc van Delf (1365-1404). 1400-1404.

The Four Elements (Earth, Water, Air, Fire).

Ink and pigments on parchment.

Walters Art Museum.

<https://art.thewalters.org/detail/81616/the-four-elements-earth-water-air-fire/>.



Avatar, The Last Airbender, 2005-2008



See you in workshop!