

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



Aral Sea, Uzbekistan



Dhaka, Bangladesh



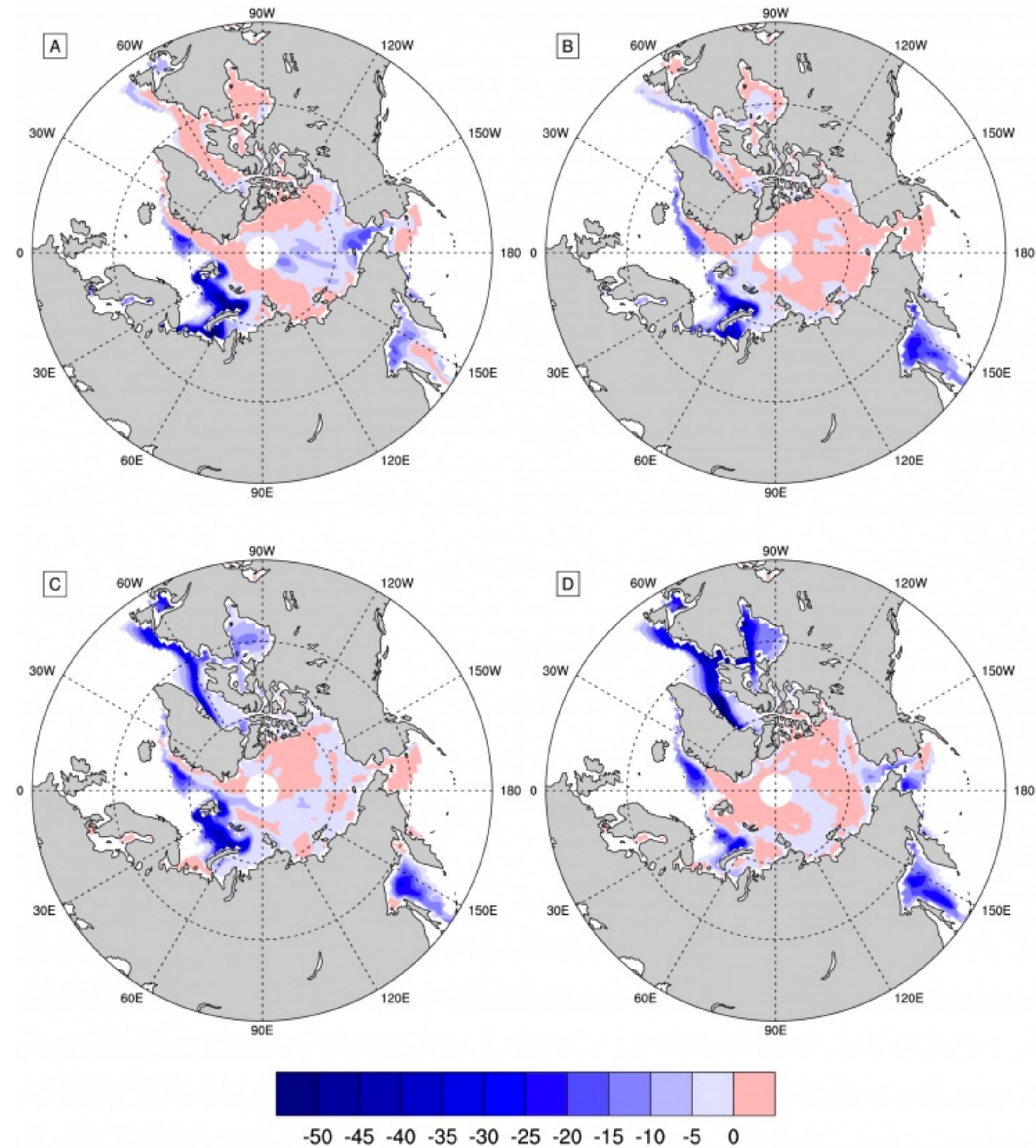
Banda, Aceh after 2004 Indian Ocean tsunami



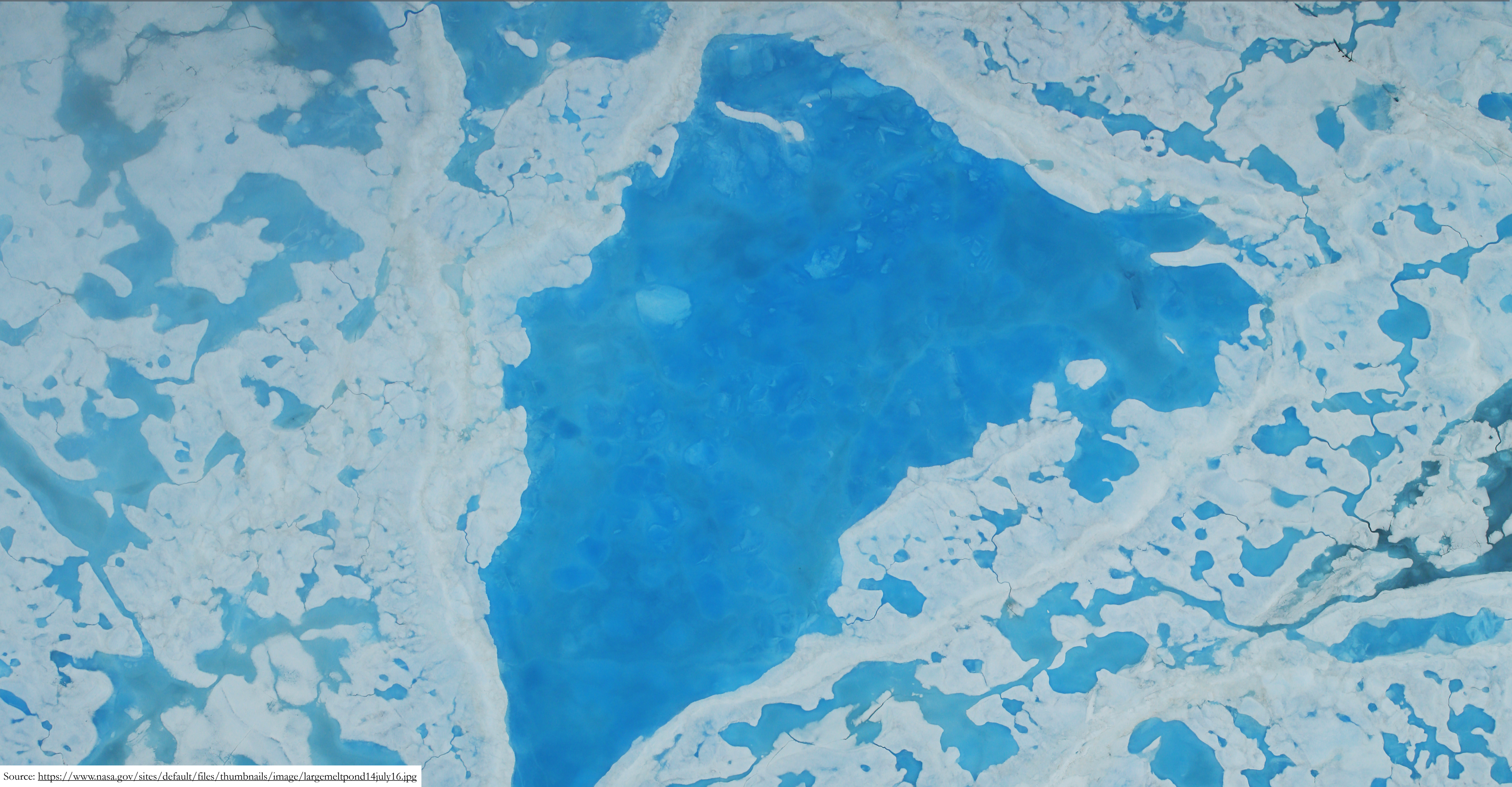
Refugees fleeing Syria, 2015



Arctic sea ice loss



Beaufort Sea, Arctic Ocean, 14 July 2016



Antarctic ice gain and loss

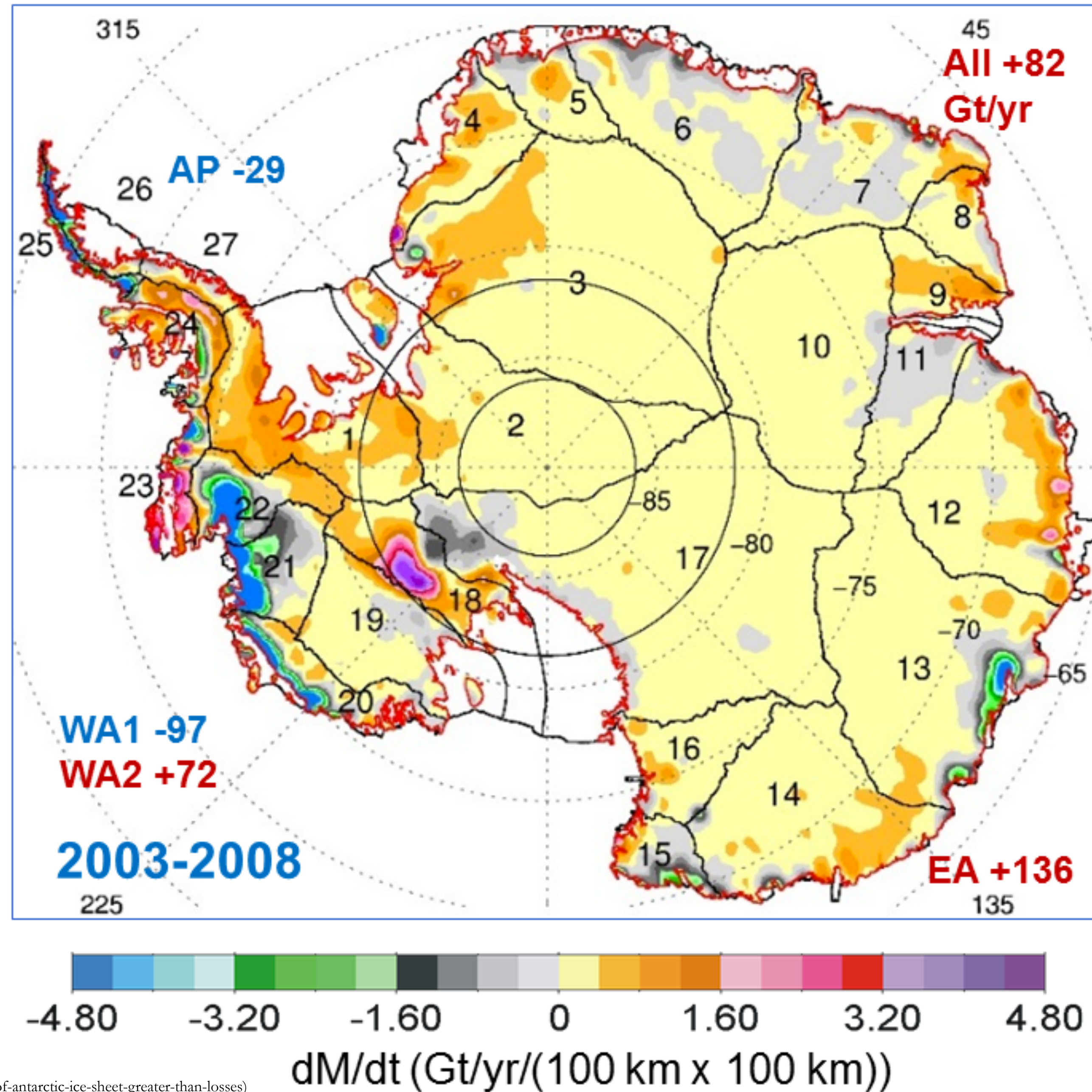


Figure 1b
Latin America & Caribbean region: Exposed population (5m SLR)



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

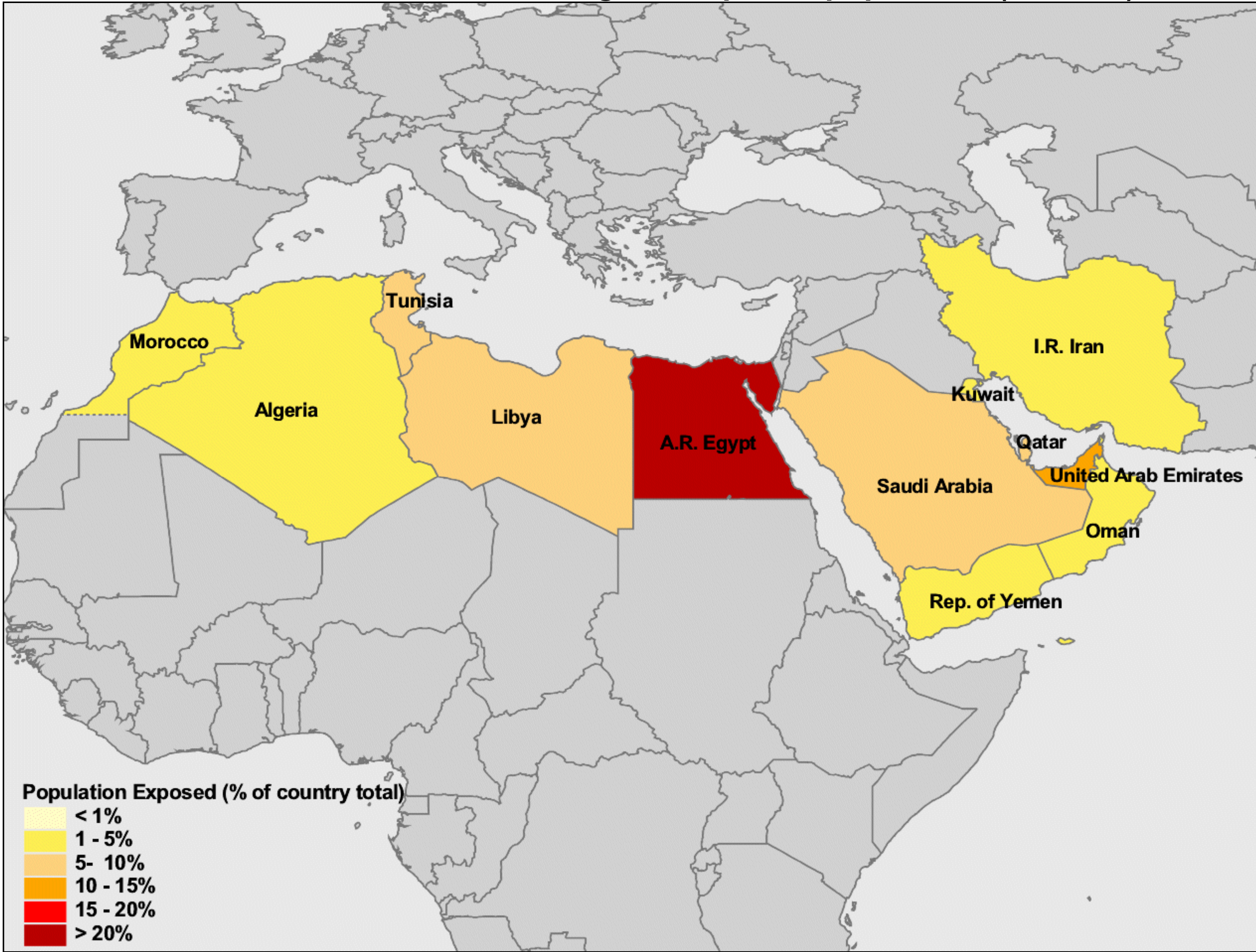


Figure 3b
Sub-Saharan Africa: Exposed population (5m SLR)

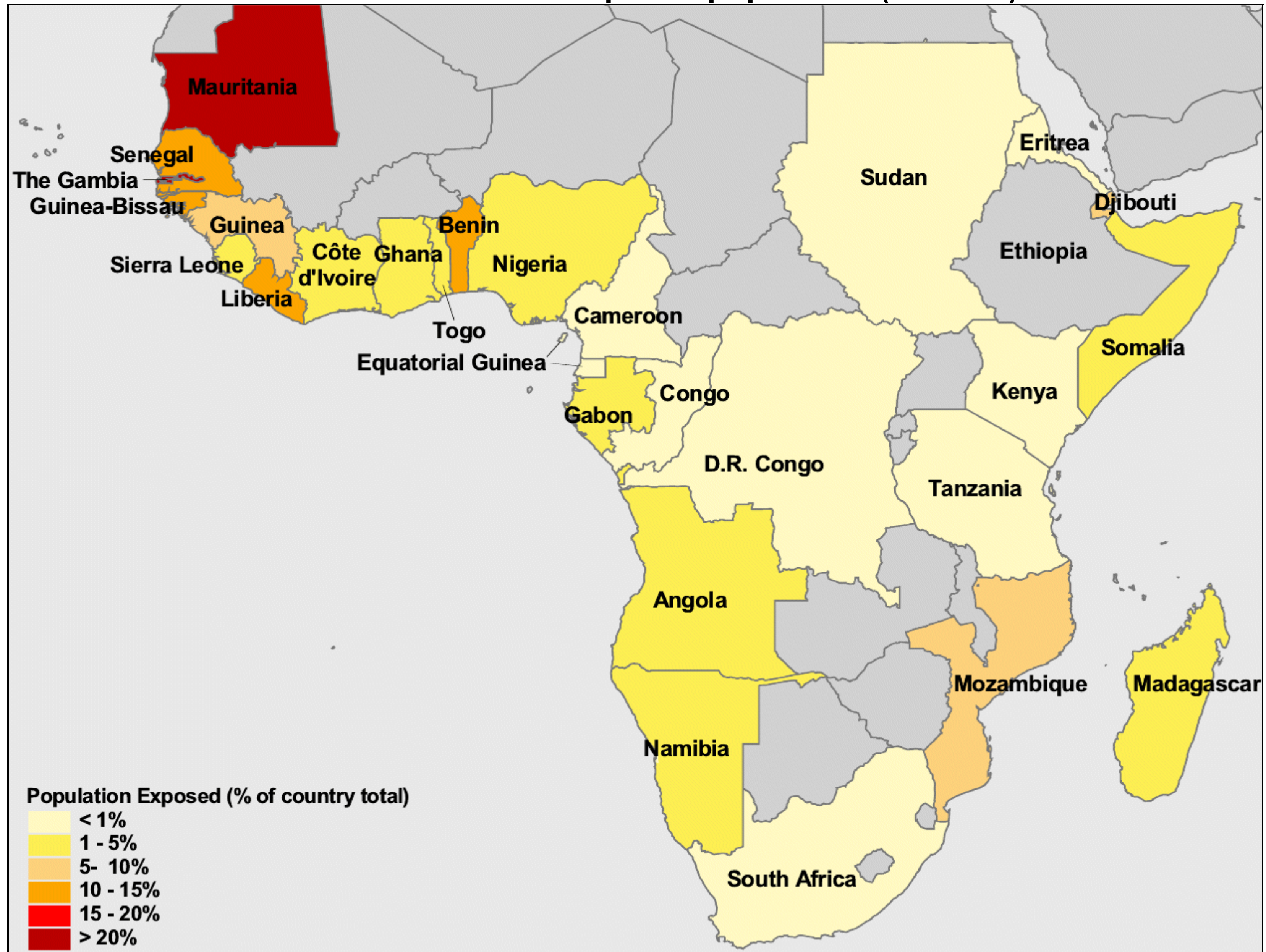
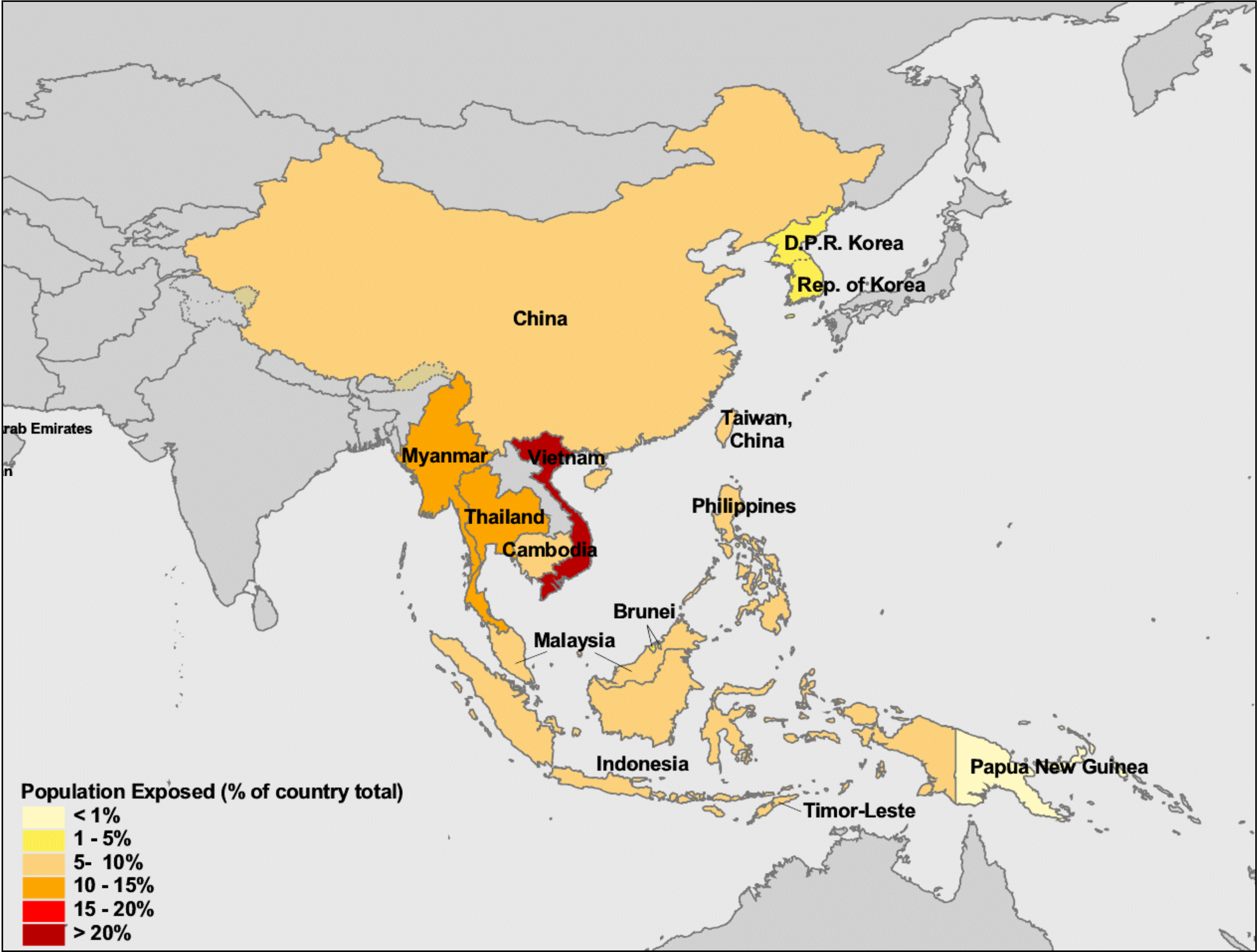


Figure 5b
South Asia: Exposed population (5m SLR)

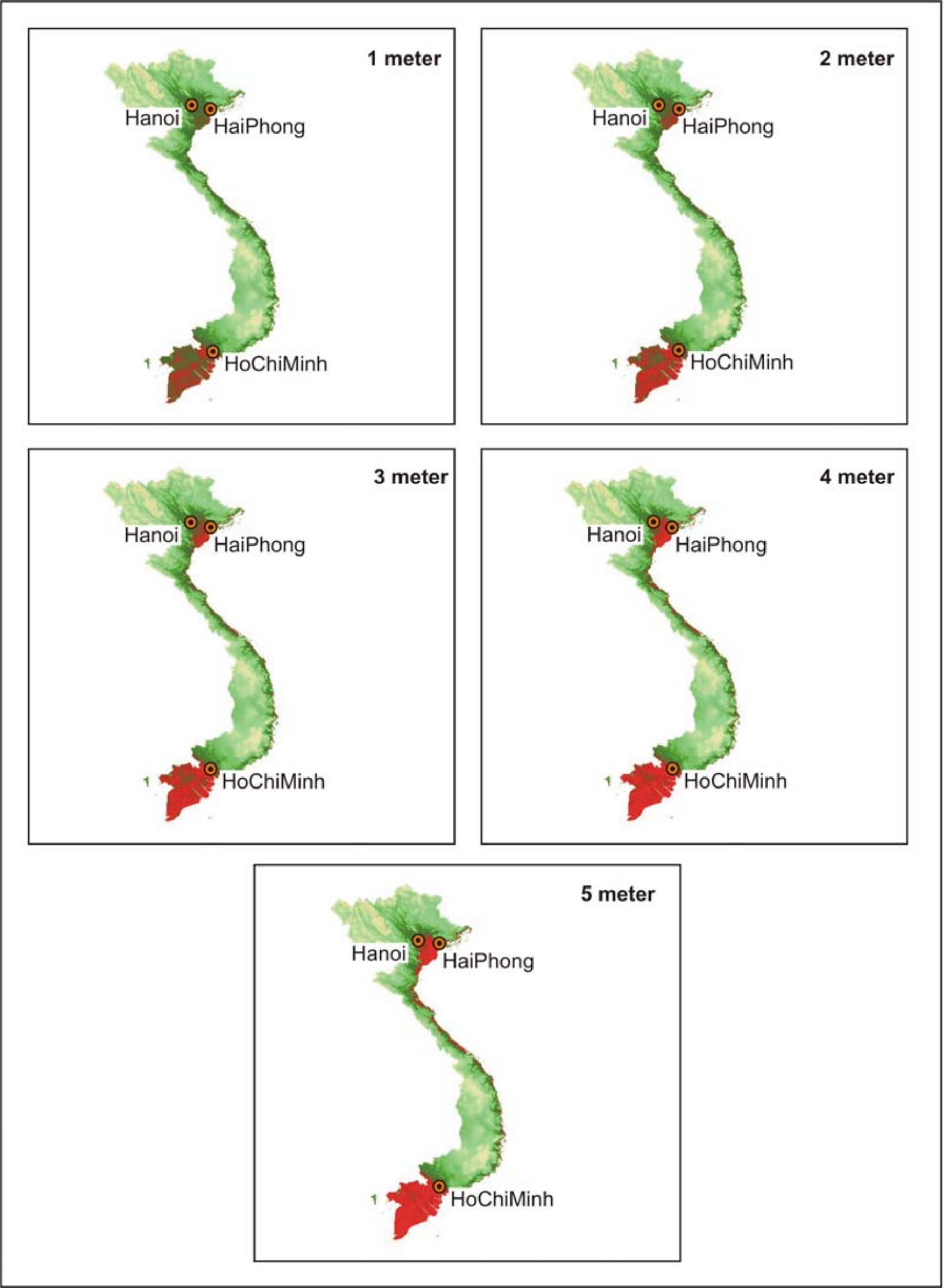


Figure 4c
East Asia: Exposed population (5m SLR)



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





ENVIRONMENT

It's the End of the World as They Know It

The distinct burden of being a climate scientist

Greta Thunberg



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



David Foster Wallace (1962-2008)



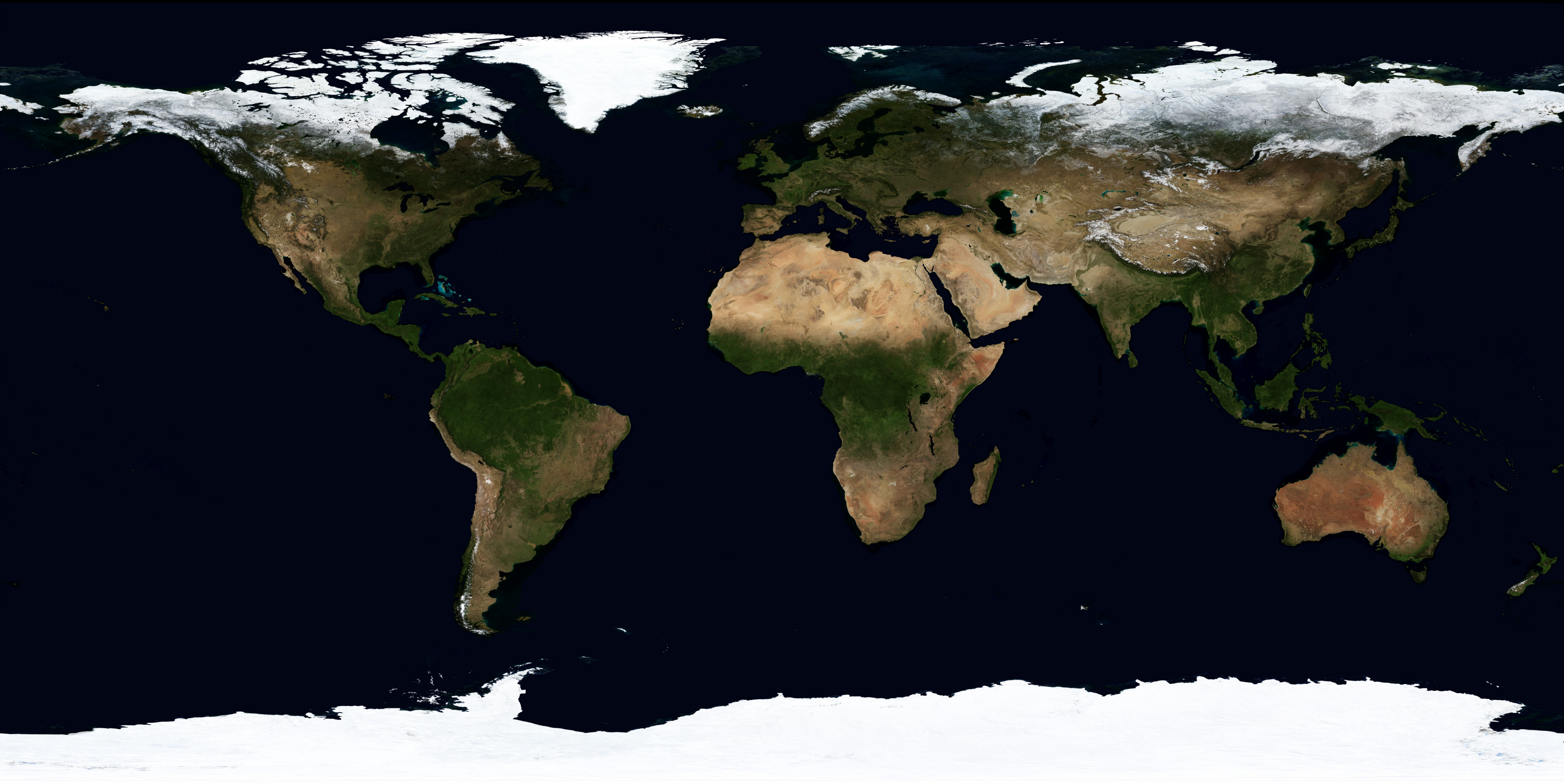
Political Map of the World, June 2019

AUSTRALIA
Bermuda
Solomon Islands
★
○

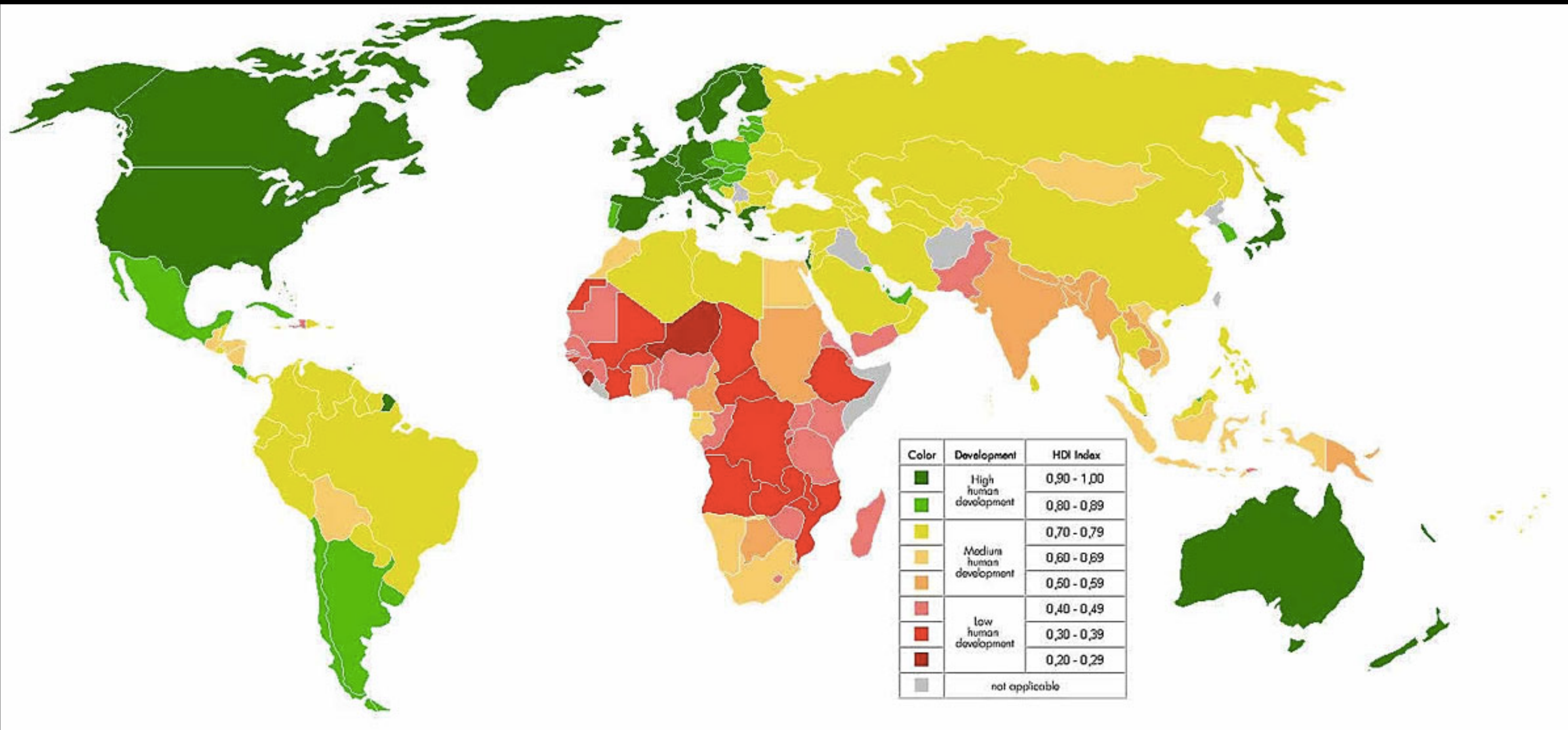
Independent state
Dependency or area of special sovereignty
Island island group
National capital
Other capital

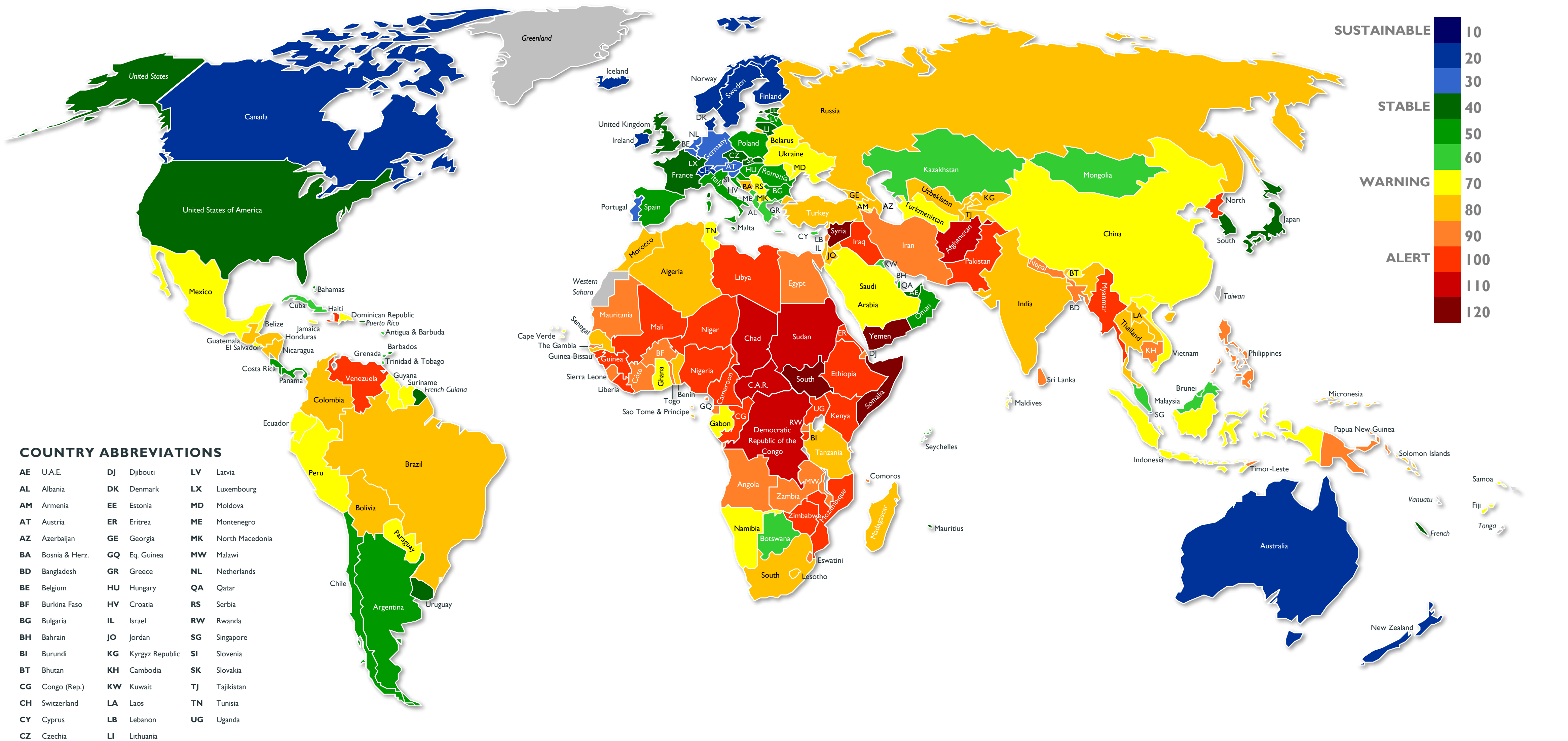
Scale 1:10,000,000
Robinson Projection



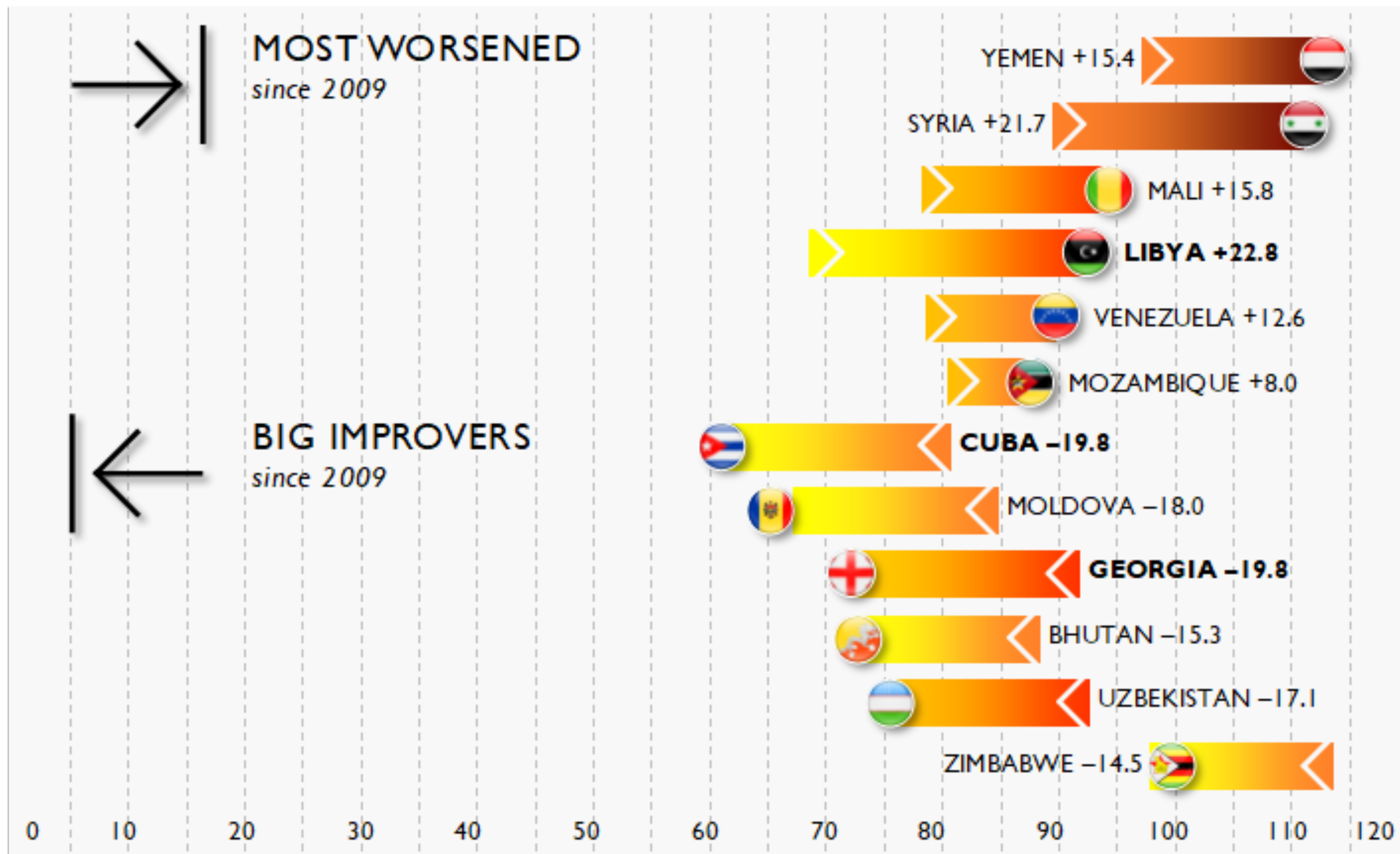


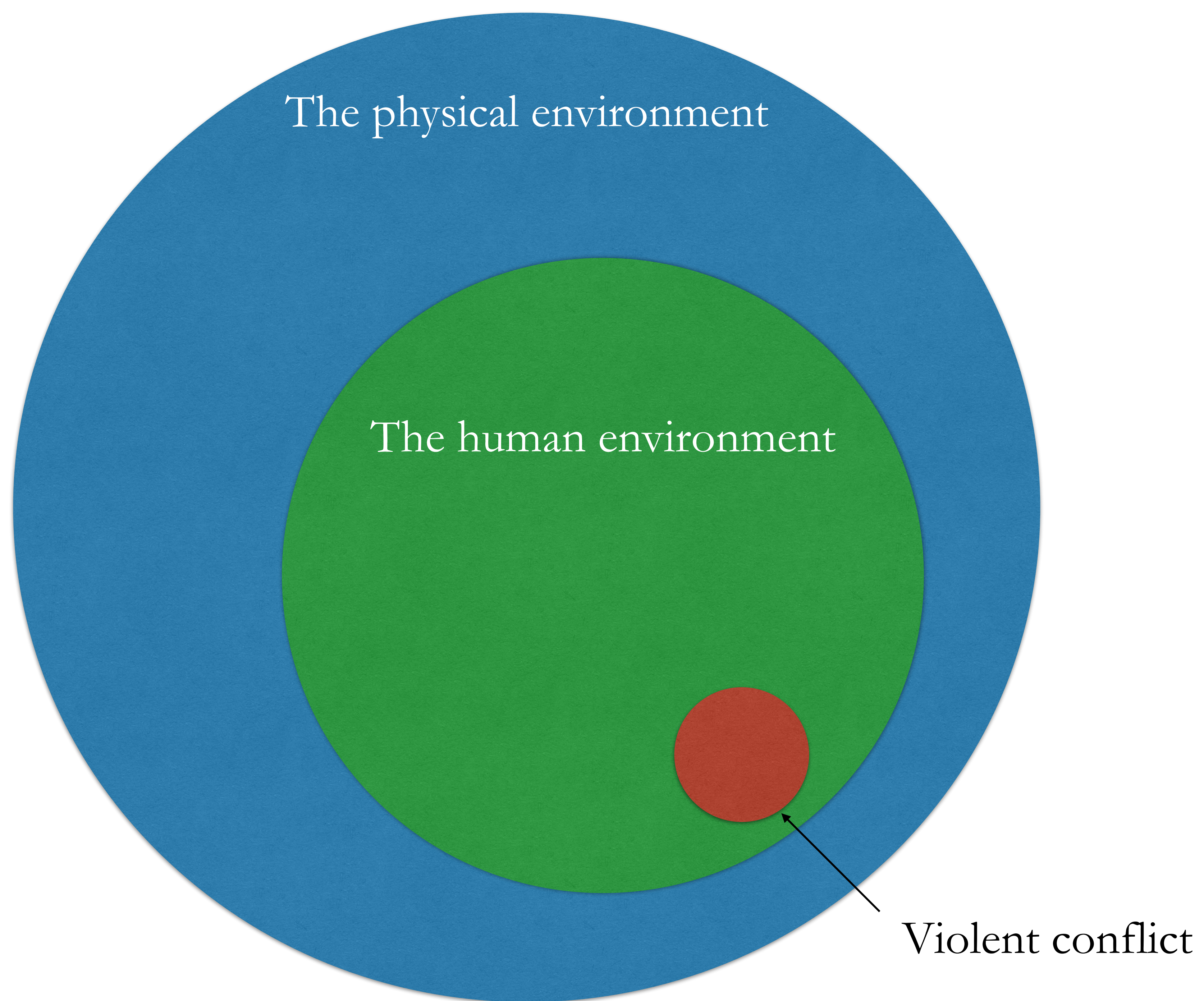
Human Development Index, 2004





Fragile States Index change, 2009-2019

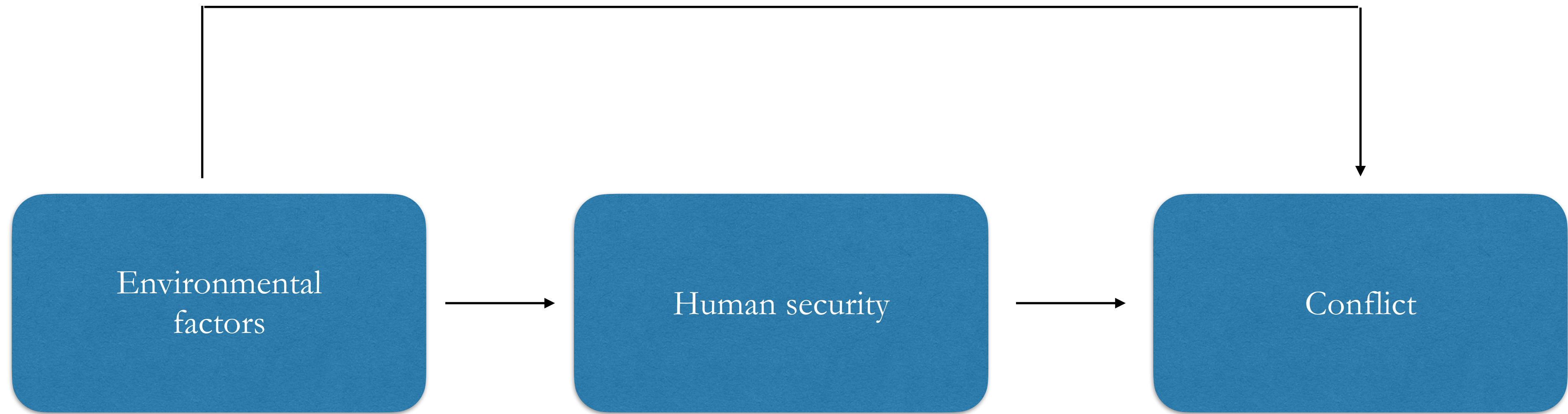






This class' main questions:

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

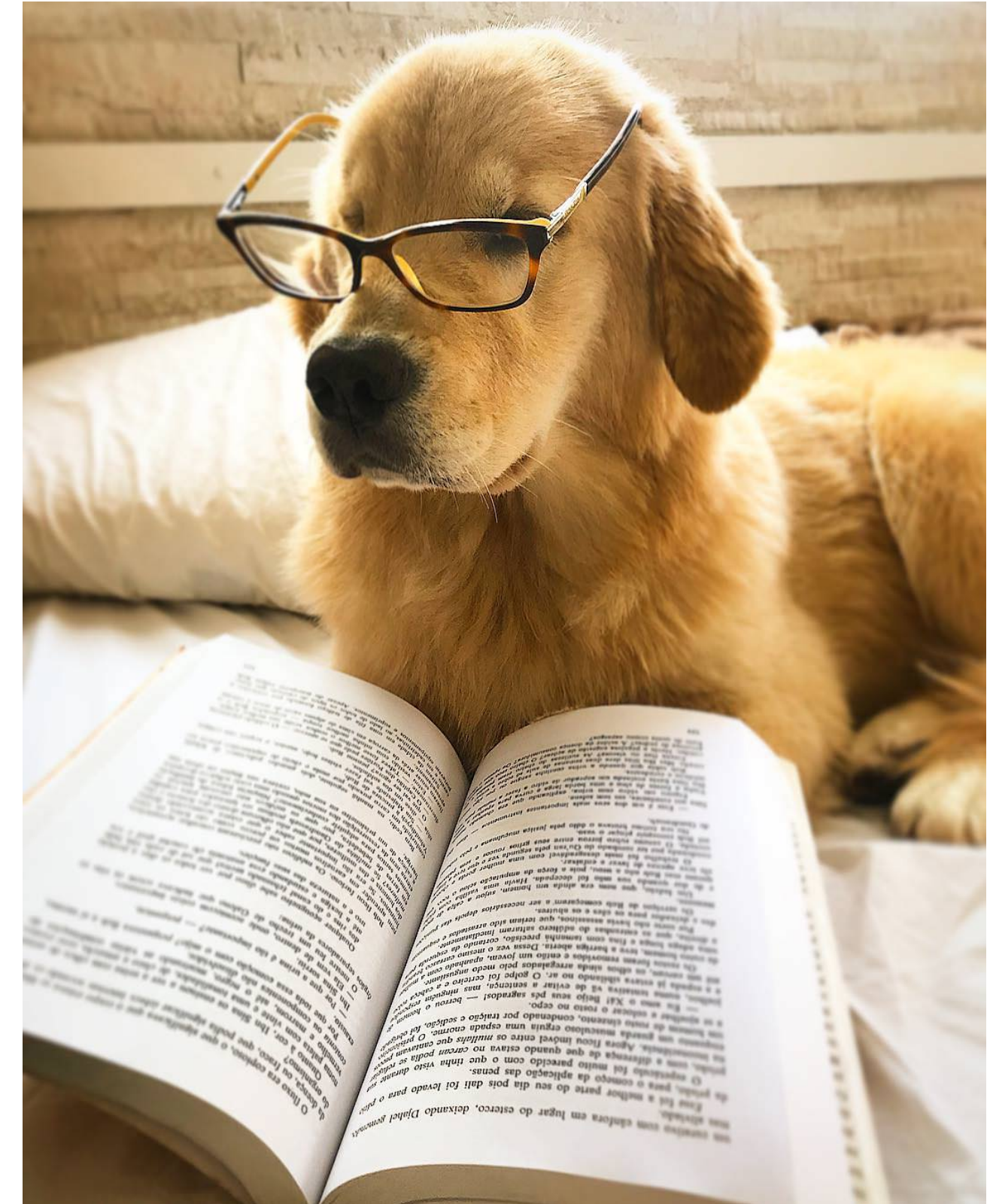
The four goals of political science research

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 @CNMoney

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

[POLITICS](#) | [FEATURES](#)

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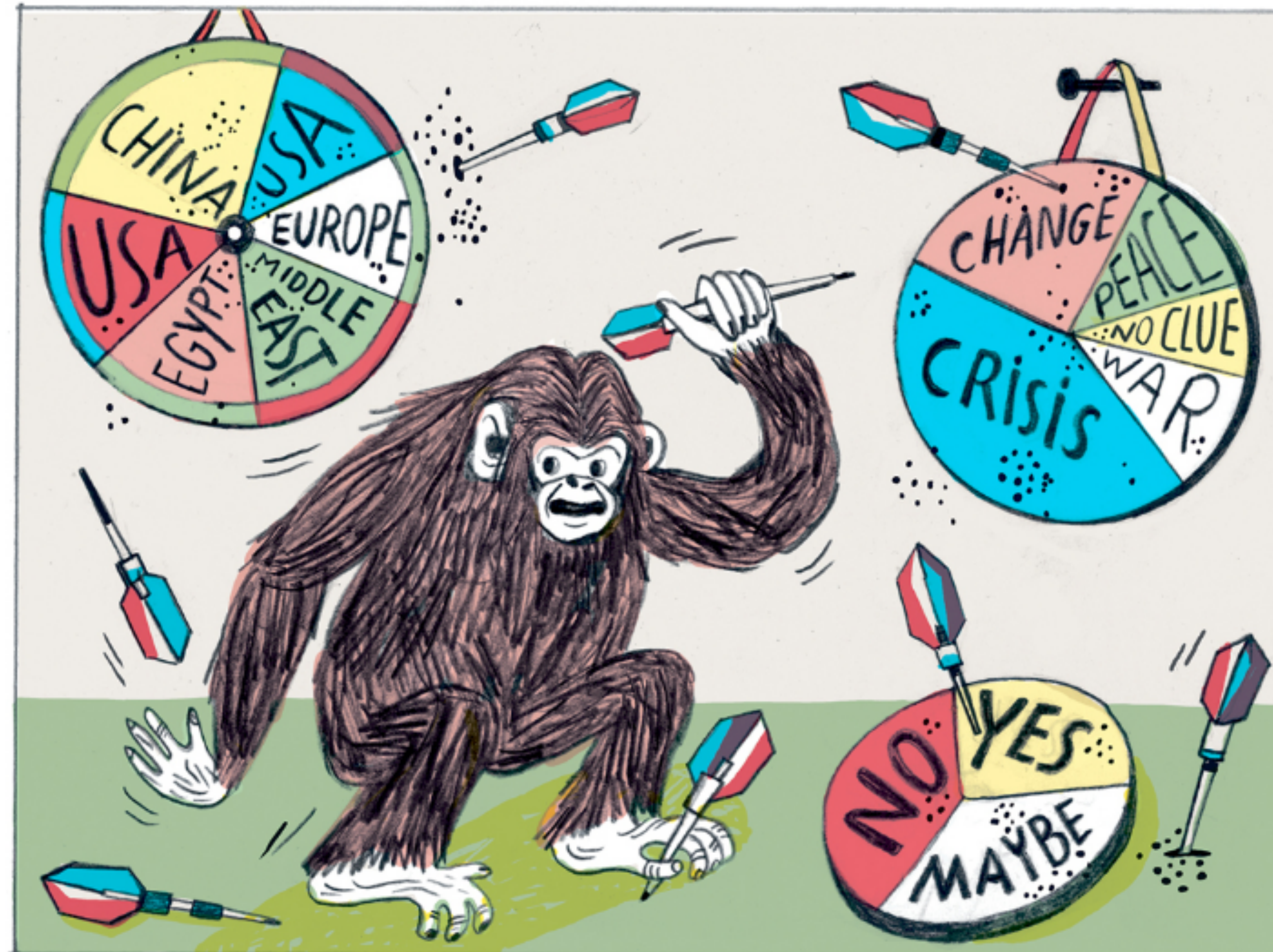
 Tweet

 Email



Political Scientists Are Lousy Forecasters

By JACQUELINE STEVENS JUNE 23, 2012



Katia Fouquet



NassimNicholasTaleb

@nntaleb

A remark: Jay Ulfedler's [@dtchimp](#) "mathematical model" to predict exudes, smells, reeks, of b[REDACTED]t.

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

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 summary

- Workshop **participation** (10%)
- **Wednesday of Week 6 by 3pm**—Mid-term **literature review** (30%), 1,500 words
- **Wednesday of Week 9 by 3pm**—Essay **proposal** (10%), ~500 words
- **Monday 4 November by 3pm**—Final **essay** (50%), ~2,500 words

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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Areas of expertise

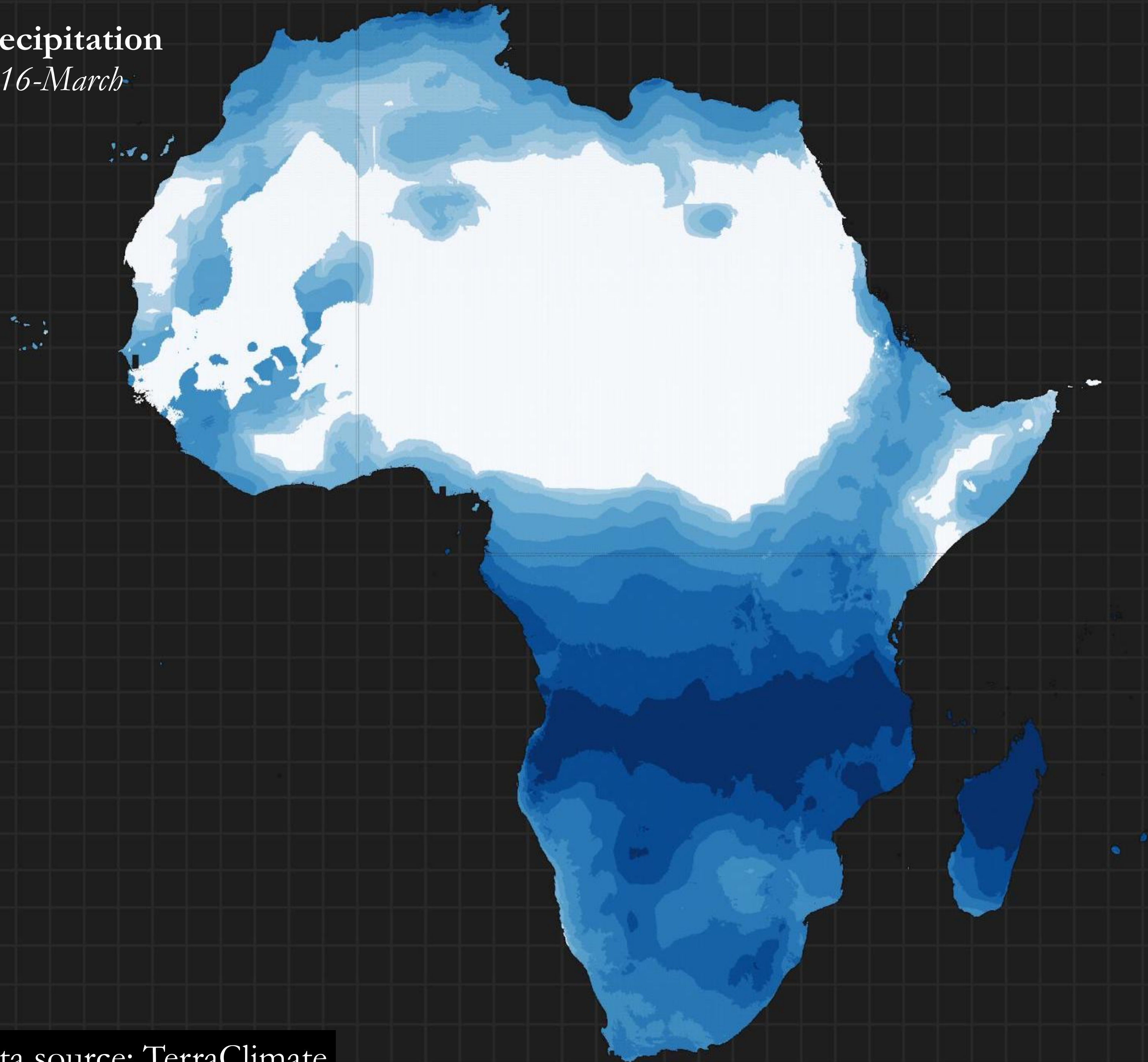
- Political Science
- International Relations
- Comparative Government And Politics

Research interests

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

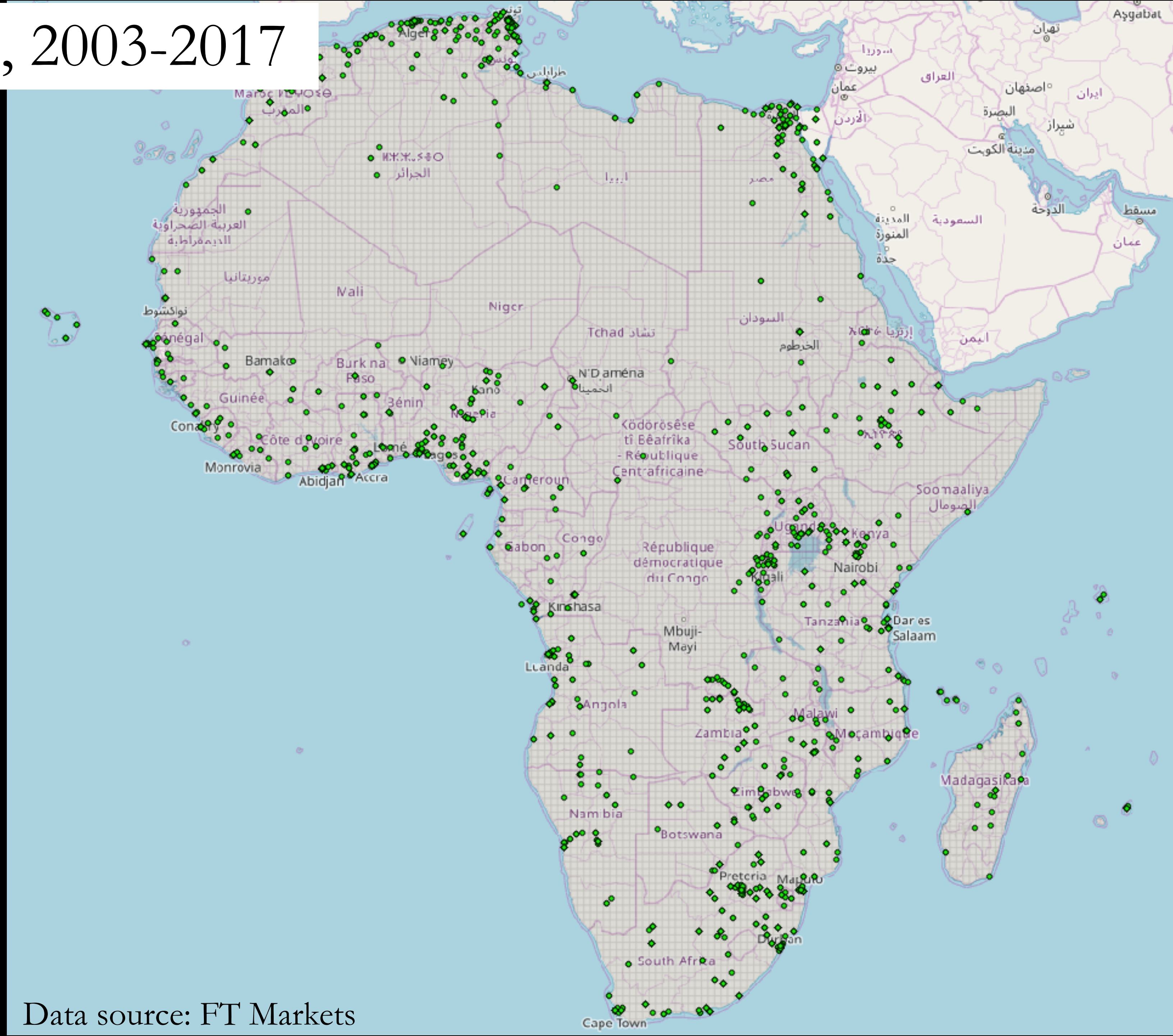
Precipitation

2016-March



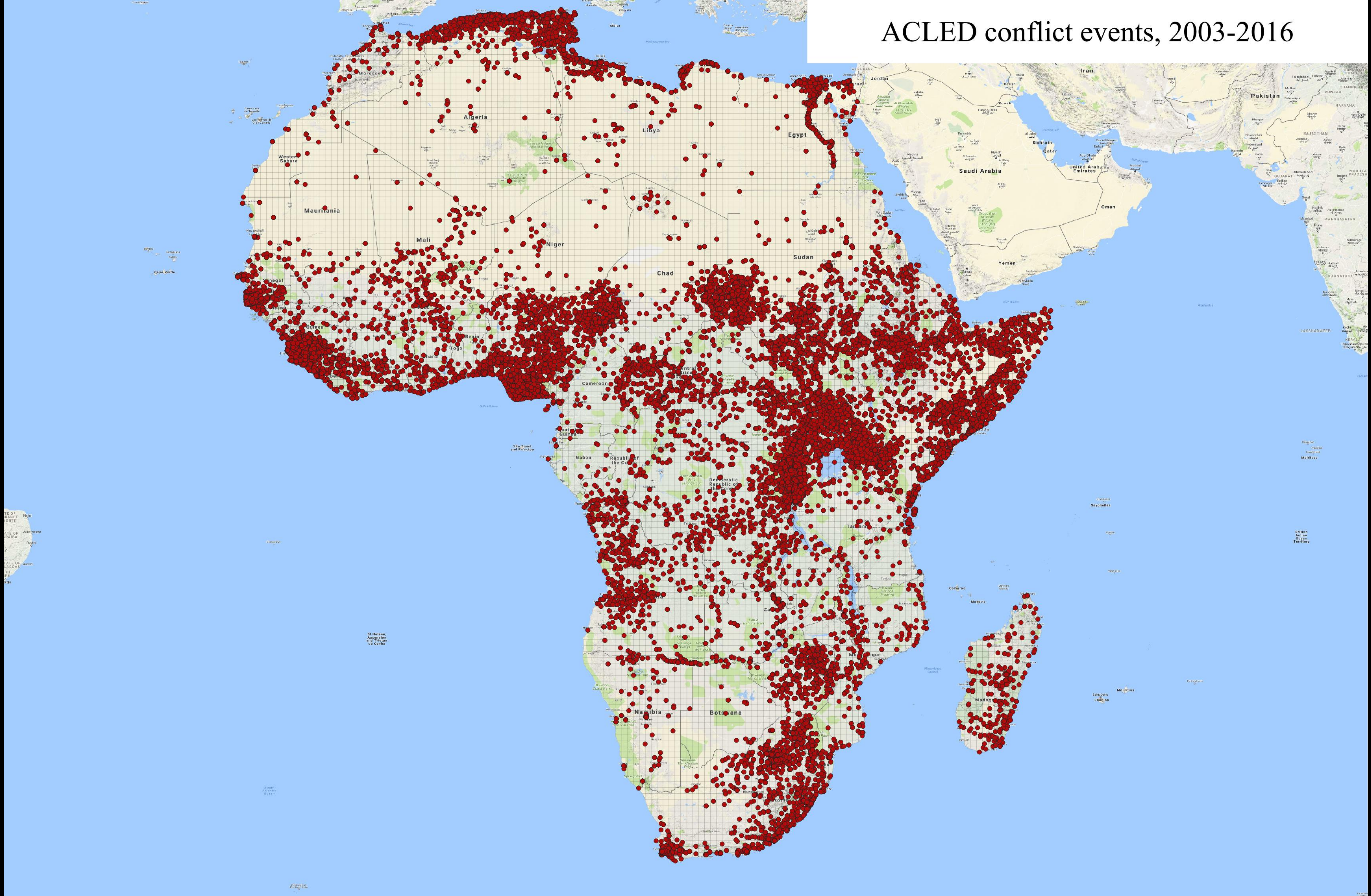
Data source: TerraClimate

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 story and discover the role played by the Australian mining company Anvil Mining Ltd in the Congo in 2004. The program was first broadcast on 6 June 2005.

Transcript

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

Background Information

For more information, see the background information on the Kilwa Incident.

NEWS

Home Just In US Election Australia World Business Sport Arts Analysis & Opinion Programs

BREAKING NEWS

The body of a man missing in floodwaters in far north Queensland has been found

Print Email Facebook Twitter More

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

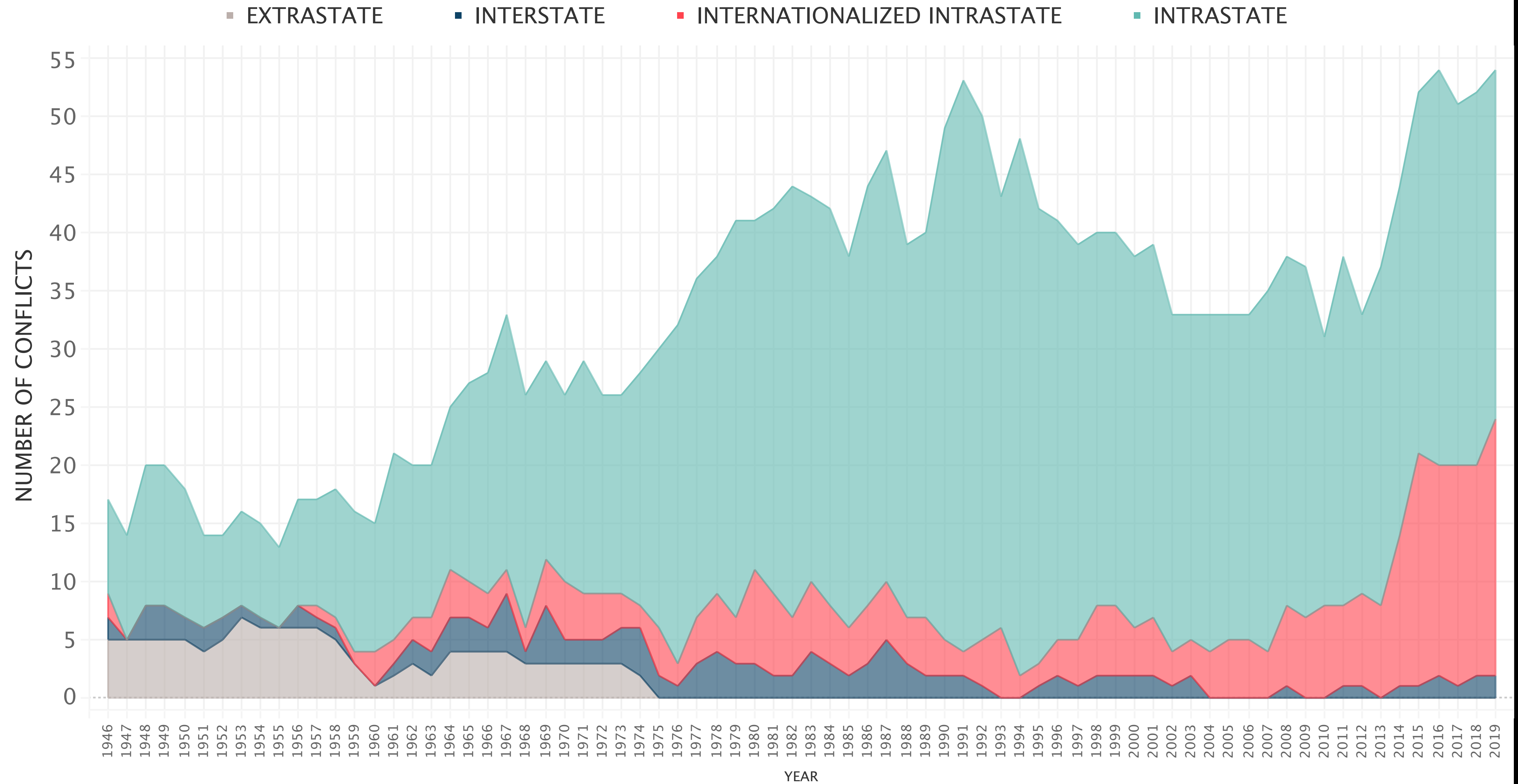


Francisco Goya. 1814. *The Third of May 1808*. Prado Museum

Fundamental questions about conflict

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

ARMED CONFLICT BY TYPE, 1946–2019



Based on UCDP 20.1 data

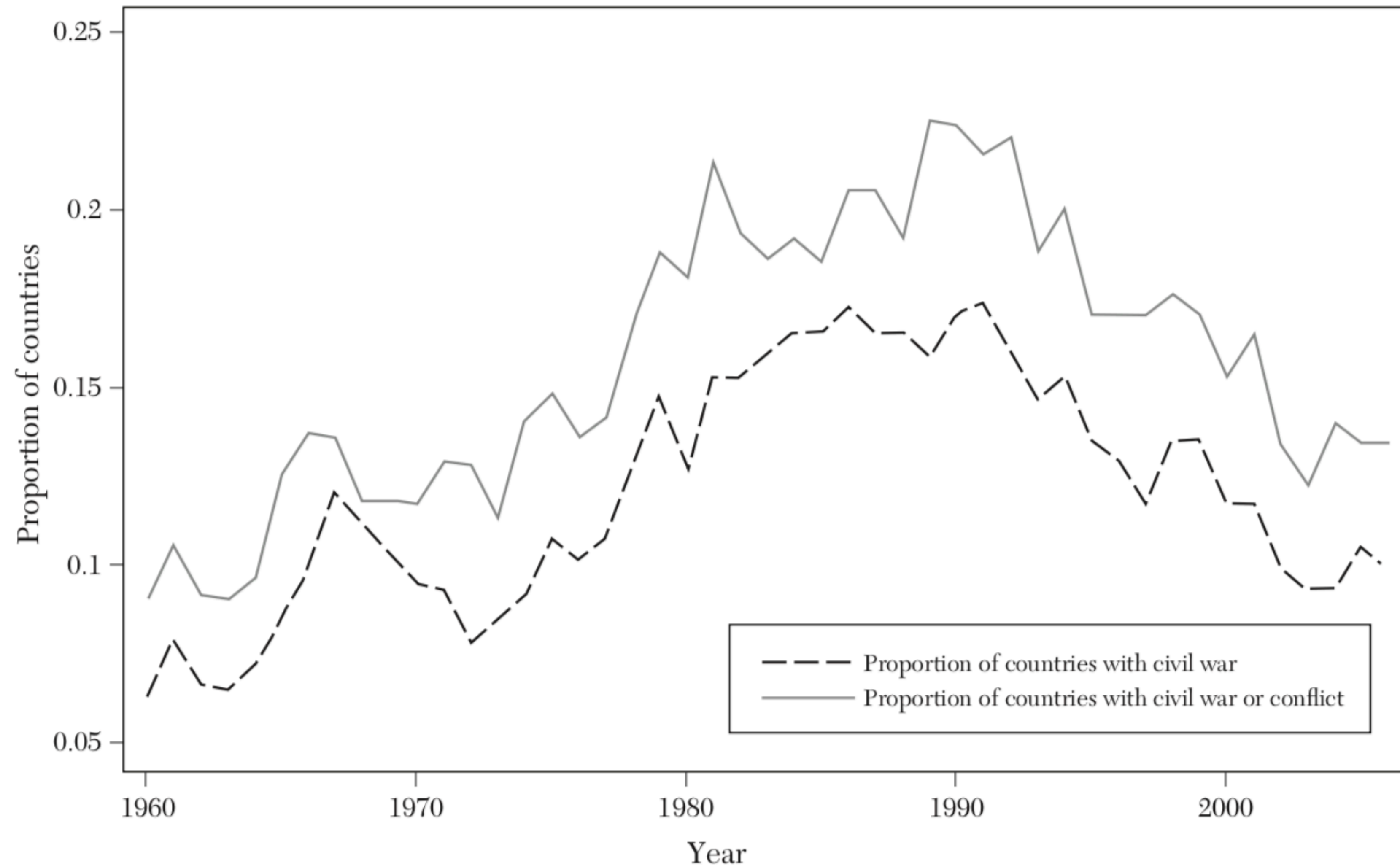
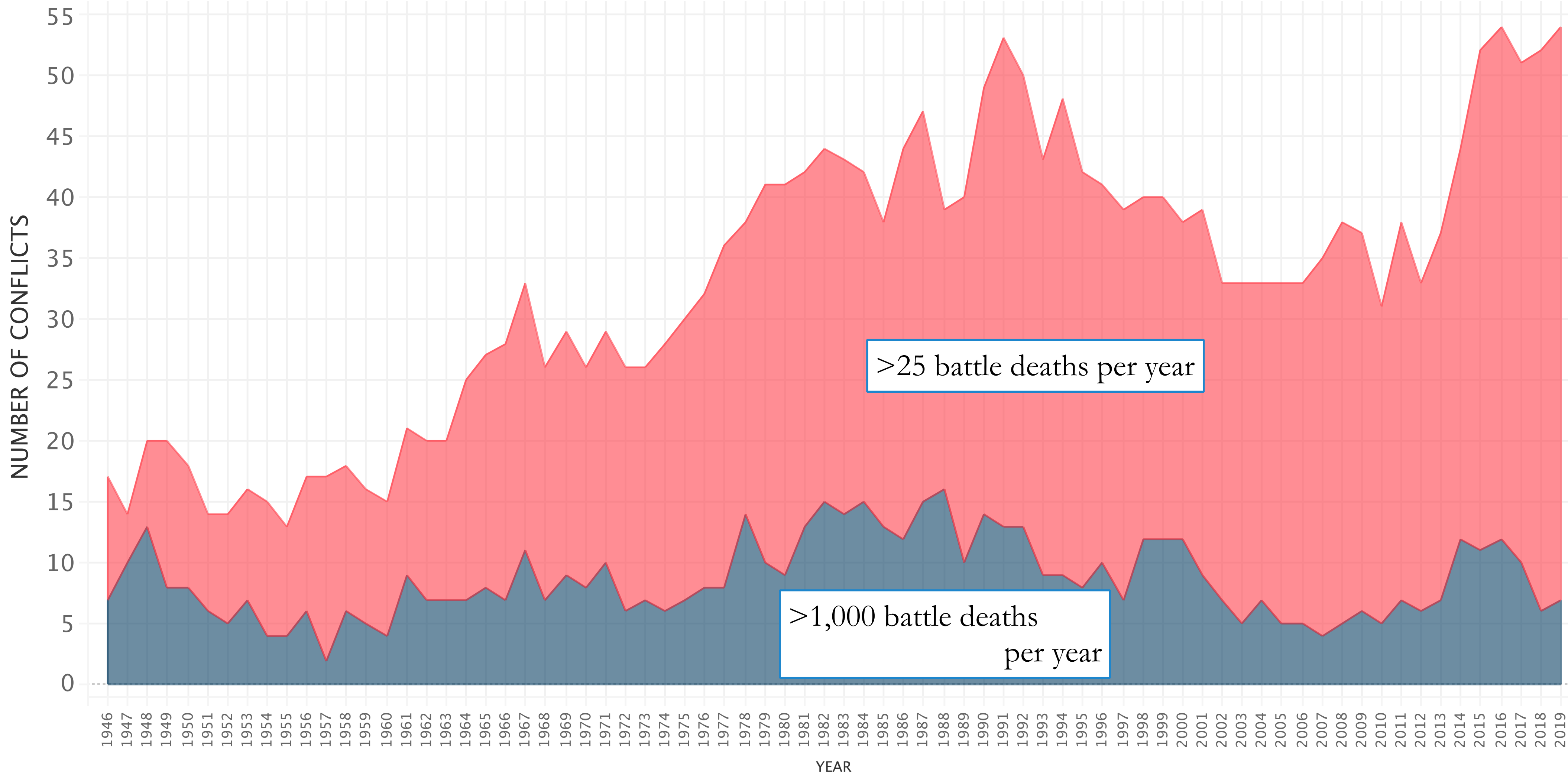


Figure 2: Proportion of Countries with an Active Civil War or Civil Conflict, 1960–2006

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

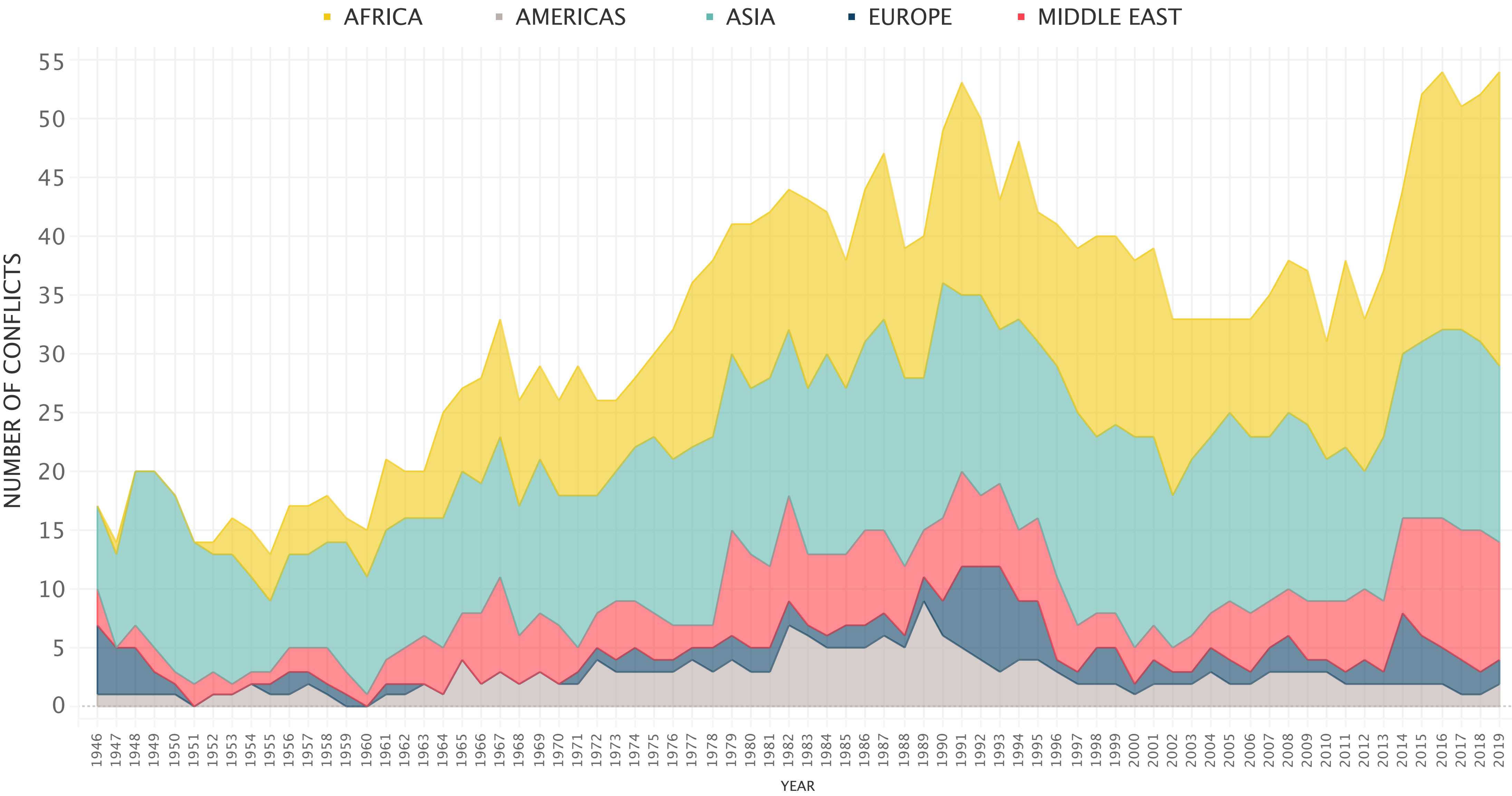
ARMED CONFLICT BY INTENSITY, 1946–2019

WAR MINOR

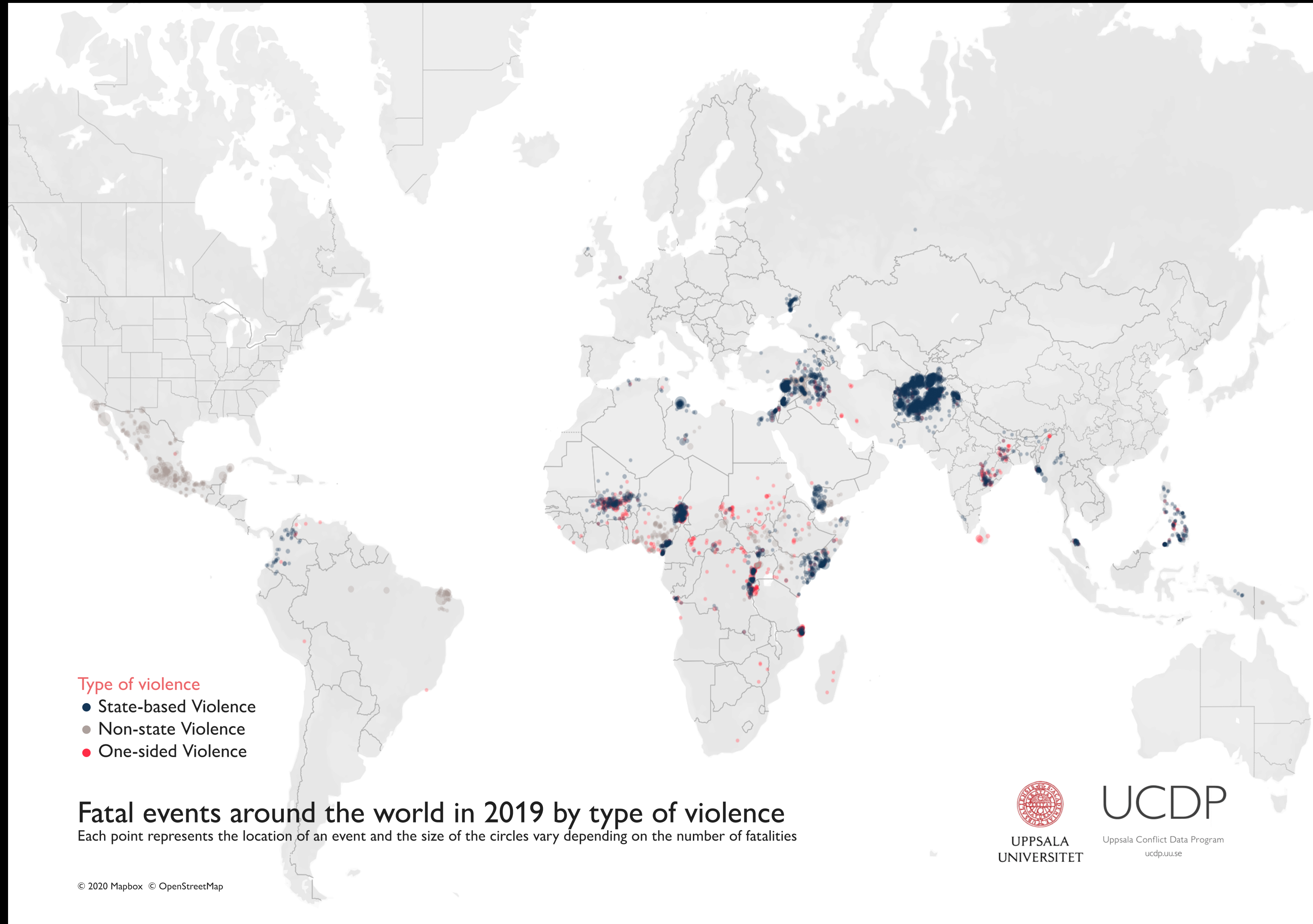


Based on UCDP 20.1 data

ARMED CONFLICT BY REGION, 1946-2019



Based on UCDP 20.1 data



Type of violence

- State-based Violence
- Non-state Violence
- One-sided Violence

Fatal events around the world in 2019 by type of violence

Each point represents the location of an event and the size of the circles vary depending on the number of fatalities

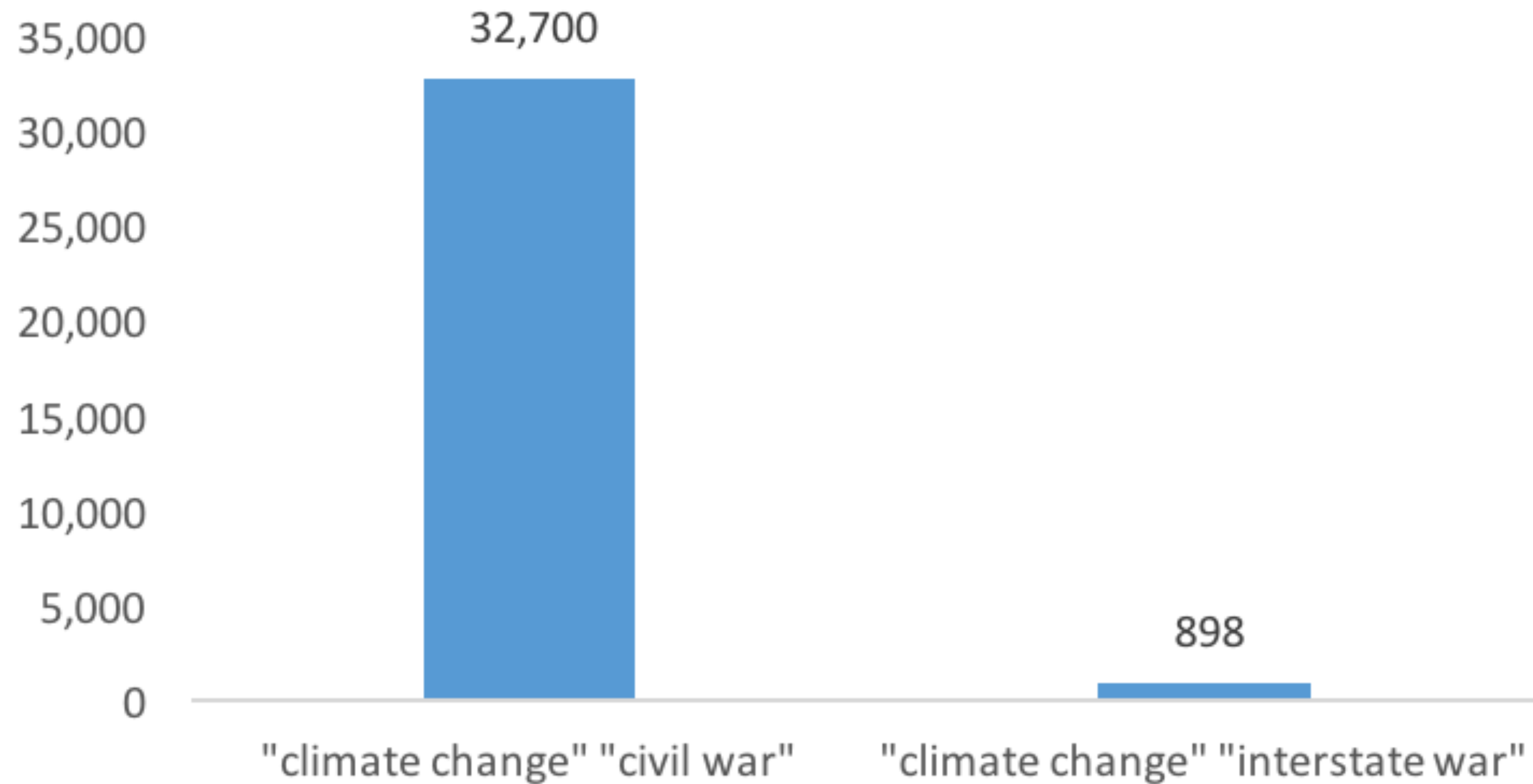
© 2020 Mapbox © OpenStreetMap



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.

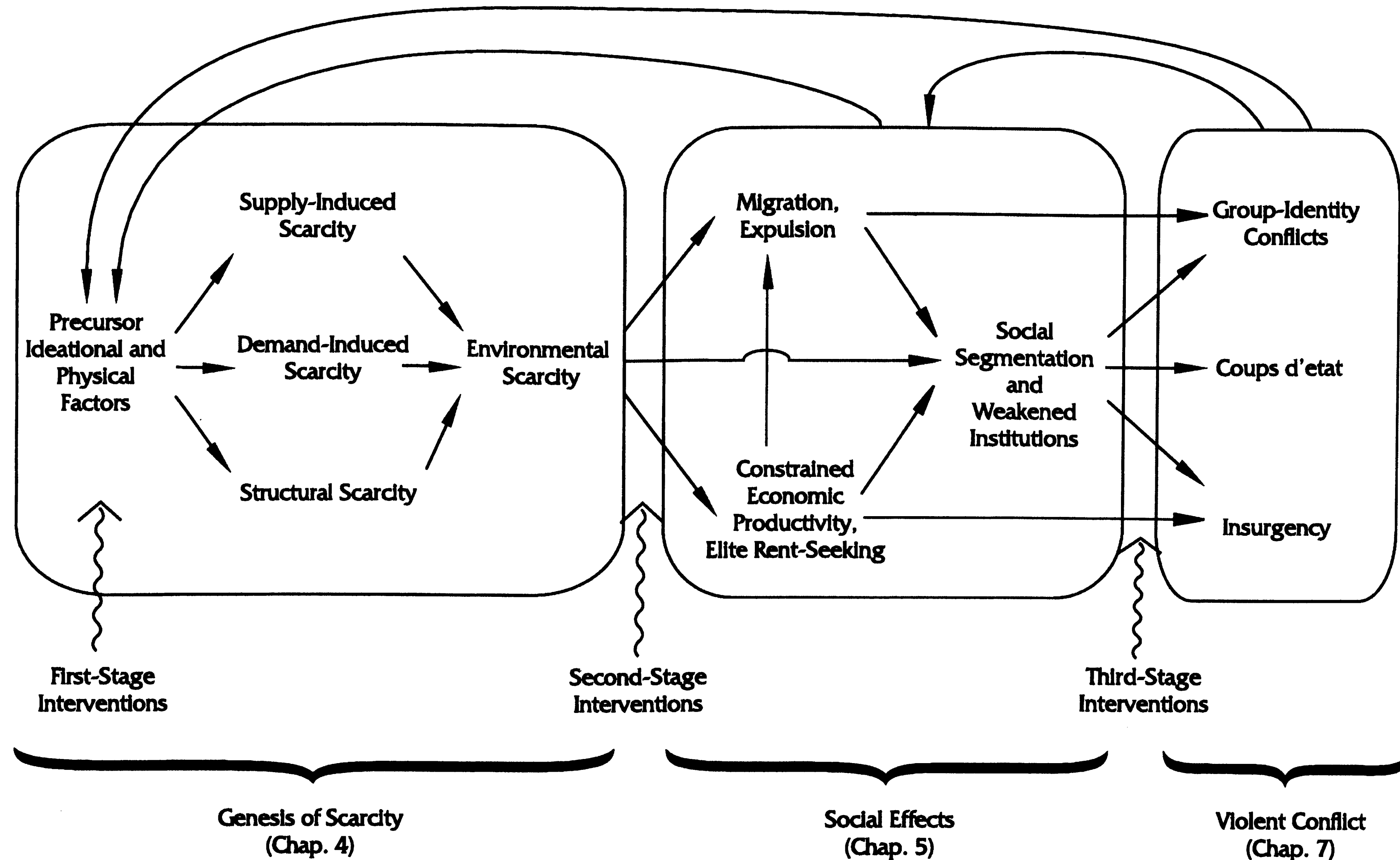


Figure 7.1. The Core Model of the Causal Links between Environmental Scarcity and Violence

Course logistics





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

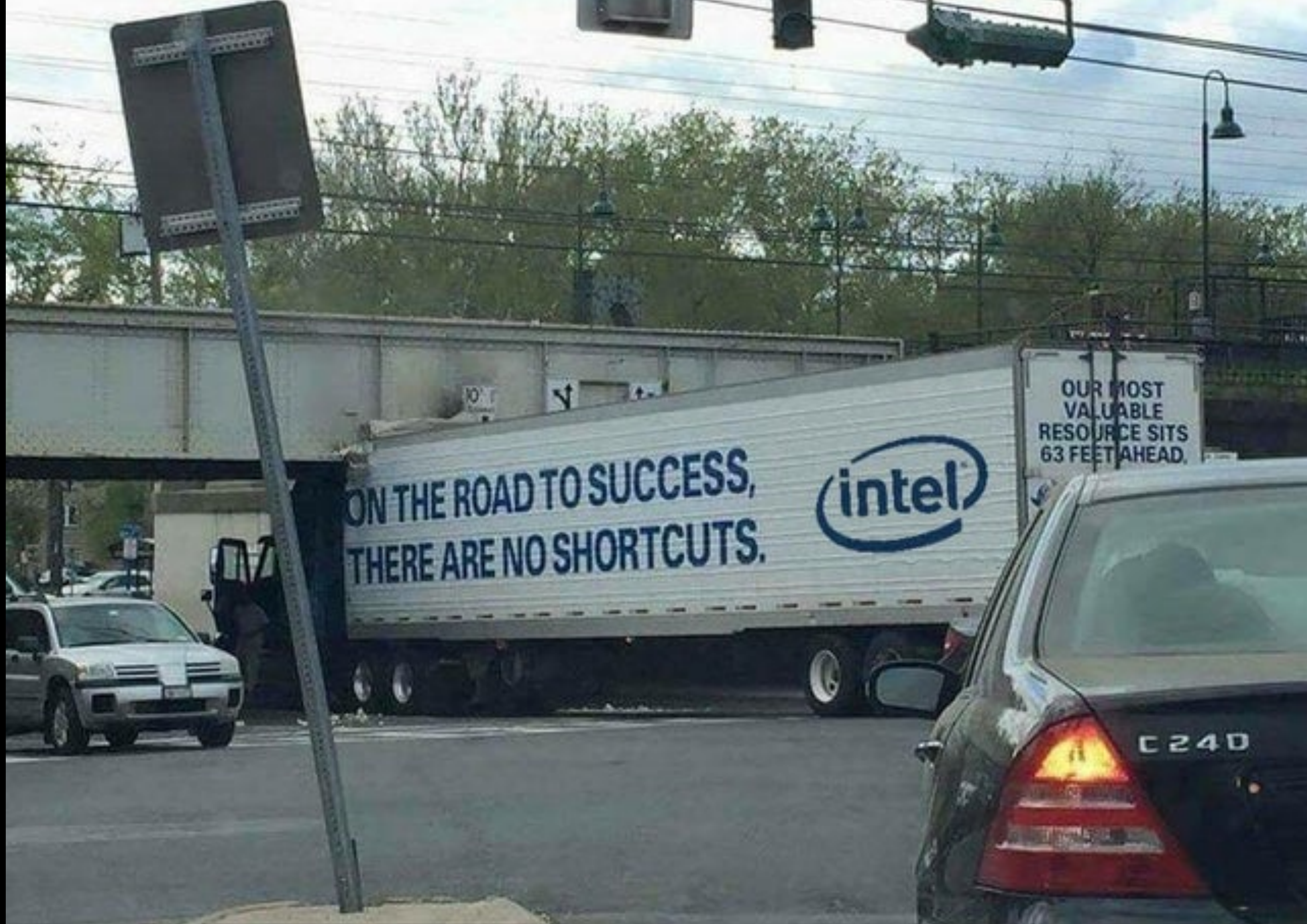


2.1K

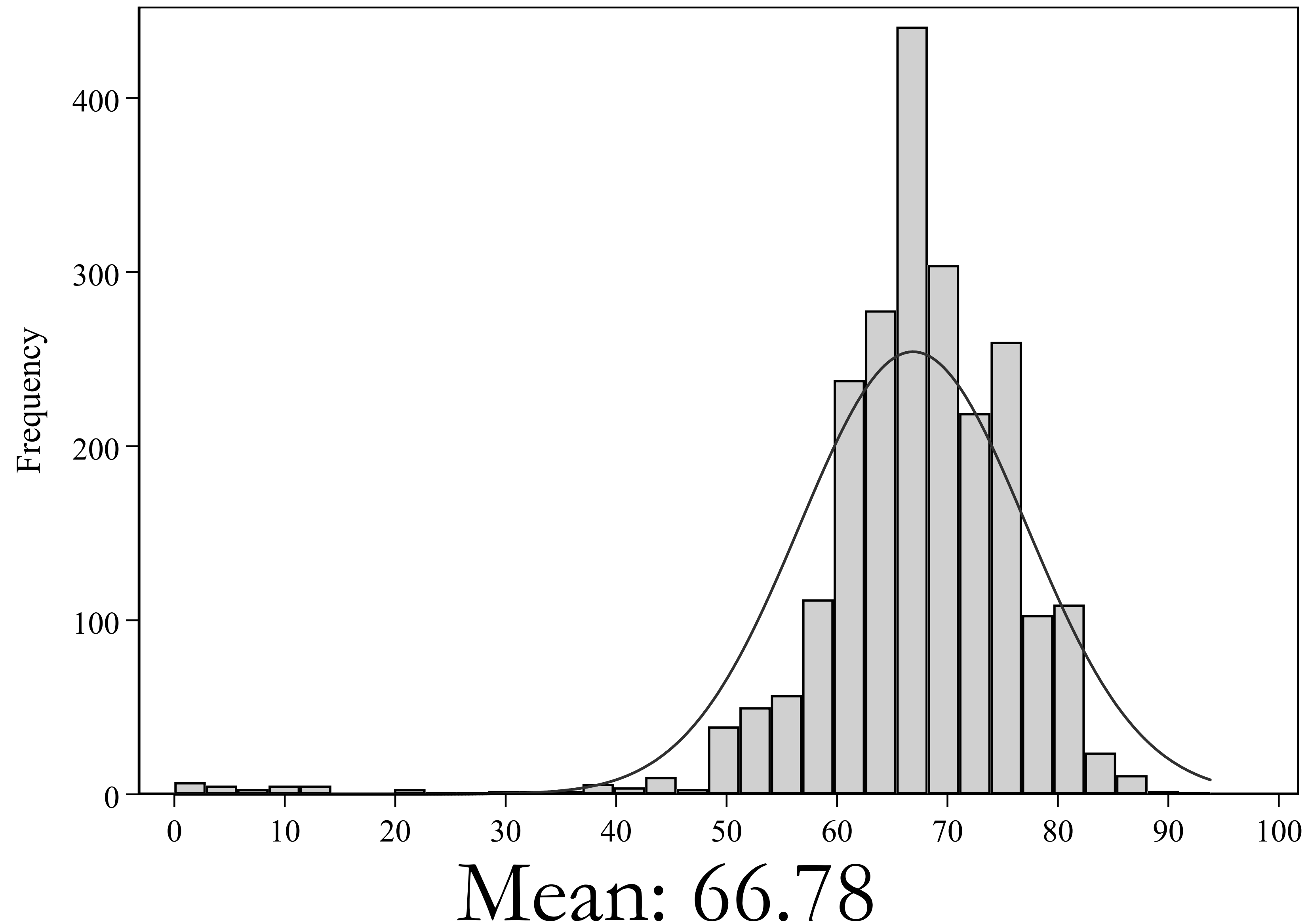


14.1K





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





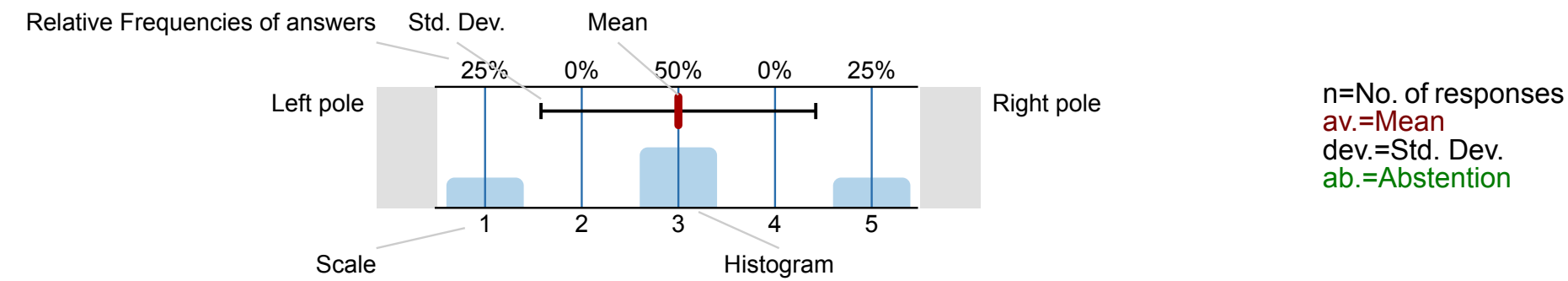
CASS Courses, Learning Support, Semester 2 2018

No. of responses = 3901

Survey Results

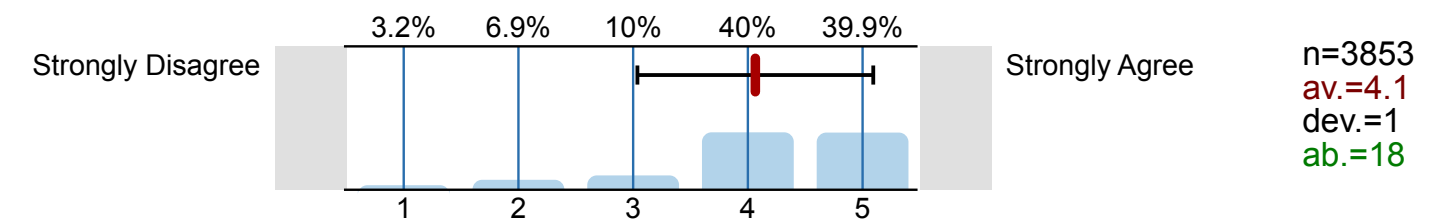
Legend

Question text

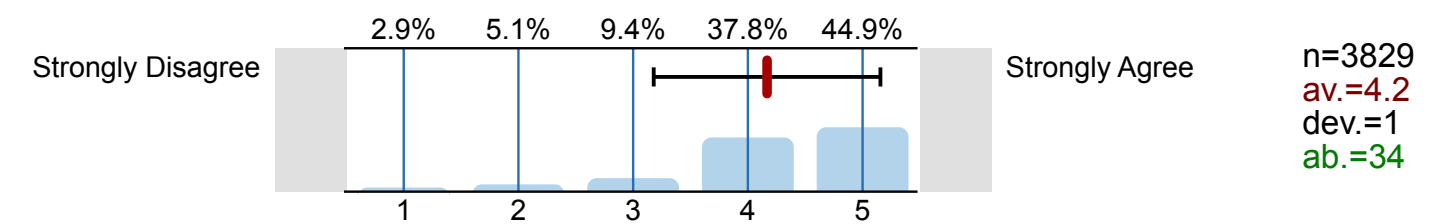


Experience of learning

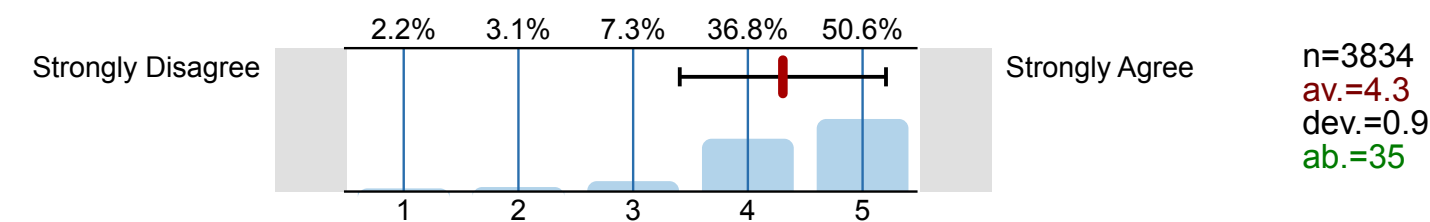
1. I had a clear idea of what was expected of me in this course



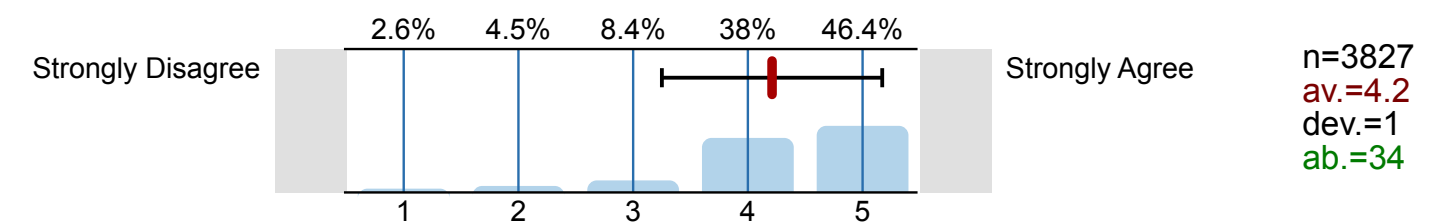
2. The teaching and learning activities (eg. lectures, tutorials, field trips) supported my learning



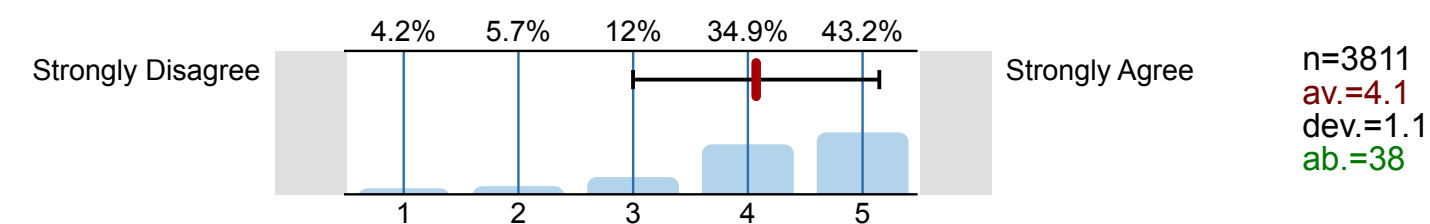
3. I had ready access to the learning opportunities provided in this course (eg. course notes, online materials, library resources, field trips)



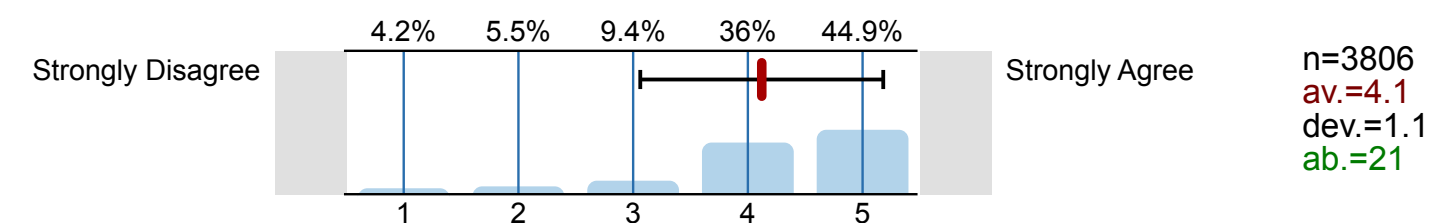
4. The assessment seemed appropriate given the goals of the course



5. The feedback I received during the course supported my learning

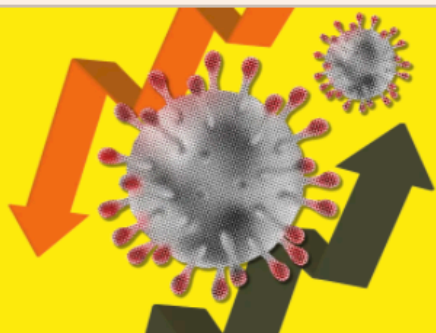


6. Overall, I was satisfied with my learning experience in this course



CORONAVIRUS BUSINESS UPDATE

Get 30 days' complimentary access to our Coronavirus Business Update newsletter

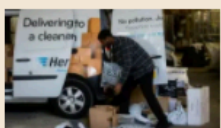


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Latest on Coronavirus pandemic



Driving the industry effort to fight Covid-19



Hiring in a pandemic is not always as easy as it looks



Treasury and banks in talks to tackle coming wave of bad Covid debt



Kim Jong Un locks down border city on coronavirus outbreak fears

Coronavirus pandemic

+ Add to myFT

Remote teaching becomes vital during coronavirus outbreak

Universities and business schools are facing unprecedented challenges across the world

Twitter Facebook LinkedIn Save



Empty lecture halls. A professor at University of Milano-Bicocca records his lesson to stream it online to his students © Reuters

I need two student representatives for this class.

I'll take the first two students to email me
after 3pm on Wednesday .

Why are Course Representatives important?

- Most ANU courses have two elected student representatives
- You ensure students have a voice to your course convener, lecturer, tutors, and the college
- Crucial for positive communication between the university and students to enable change
- Important part of the network of student advocacy at ANU
- Benefits for you:
 - ANUSA and PARSA run training to give you skills to be effective
 - Learn professional skills eg. communication and negotiation

What would I need to do?

- Be available and approachable – seek class feedback
- Attend meetings (at least twice each semester) with course convener and head of school
- Communicate feedback effectively from the class to the convener
- Close the feedback loop by reporting back to the class the outcomes of your meetings
- Connect to ANUSA College Representatives and Vice President, or PARSA College Reps, if you need support
 - sa.cass@anu.edu.au
 - sa.vicepres@anu.edu.au
 - parsa.cass@anu.edu.au
- Refer to the CASS Class Reps Guidelines on your course Wattle site

Next Steps?

- Nominate if you're interested!
- Vote in the class elections
- Training with ANUSA and PARSA in Week 3 and 4 (dates to be confirmed)
- Got questions?
 - Contact ANUSA President, Eden Lim: sa.president@anu.edu.au
 - Check out ANUSA's website for more information! <https://anusa.com.au/advocacy/coursereps/>



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/>.

See you soon
either online or in person!