# **Climate Security**

### Time to Move from Talk to Action

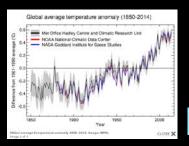
25 January 2016

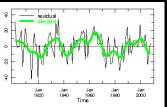
Presentation at Planetary Security event hosted in New York City by Kingdom of the Netherlands

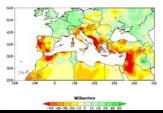
Marc Levy CIESIN, Earth Institute Columbia University

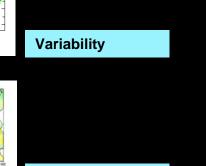
mlevy@columbia.edu @marc\_a\_levy

### Climate



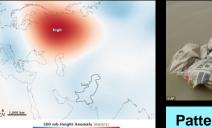






Extremes

**Averages** 



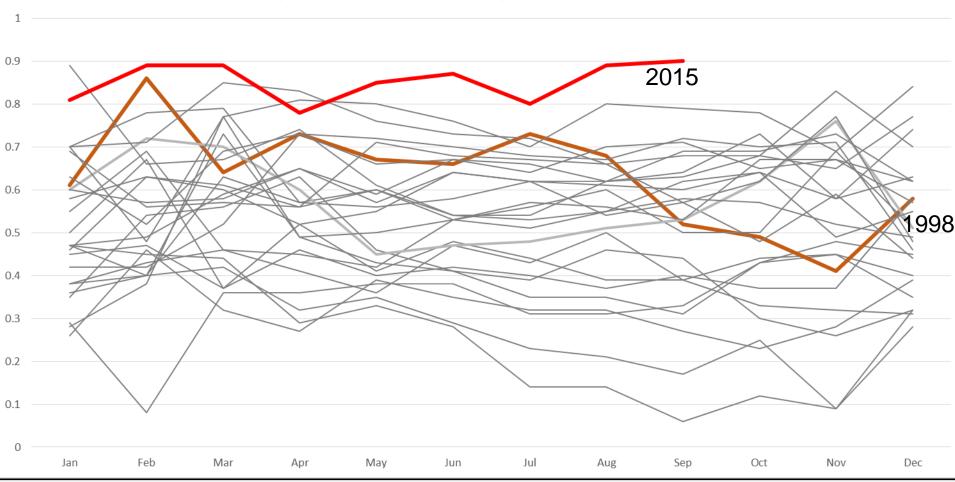


Patterns

Climate change appears in different forms.

The science is strongest on averages and variability because that's where our data and models are best.

We have recently become more aware of changes in extreme events and changes to climate patterns.

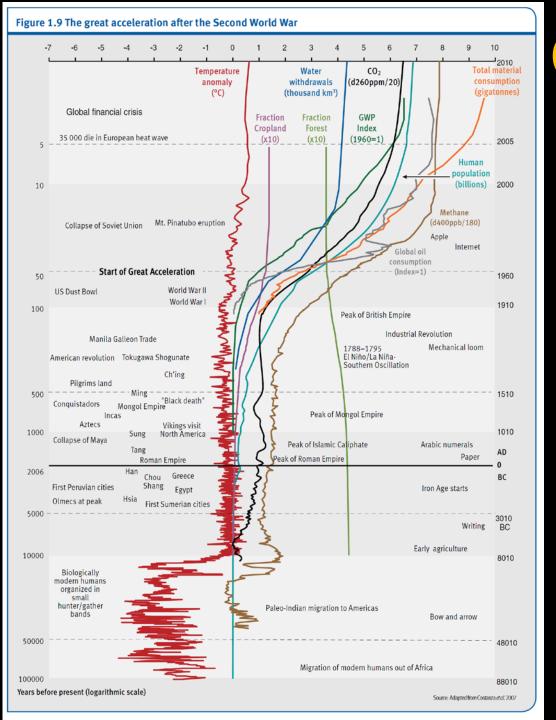


Monthly Global Land and Ocean Temperature Anomalies, 1990-2015

Annual Global Land and Ocean Temperature Anomalies 1880-2014

10-year moving average





Climate change doesn't have a monopoly on non-analog states

- Rapid global change underway
- Many trends unfavorable
- Alarming implications for risk

## Linkages

A New Climate for Peace



Annual Threat Assessment of the Intelligence Community

for the Senate Select Committee on Intelligence



Dennis C. Blair Director of National Intelligence 12 February 2009

**Over 70%** 

of countries view climate change as

a national security issue

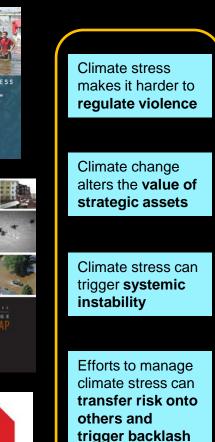
Source: American Security Project (2013)



An Abrupt Climate Change Scenario and Its Implications for United States National Security October 2003

By Peter Schwartz and Doug Randall

Imagining the Unthinkable



Understanding of the linkages is changing fast, as new data and methods become available, and as we confront more fragile societies with unprecedented climate shocks.

On the research front, the new findings tend to find more reasons for worry, not fewer.

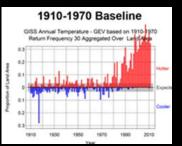
Among practitioners, the more people consider the linkages, the more alarmed they become.

There has been a lot of effort to make sense of things in the past ten years.

There is very high convergence around four core types of linkages that a world with climate change less secure than a world without it.

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## This is a bad time to be experiencing these risks

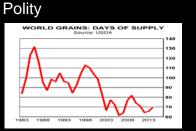


### McElroy and Baker 2012



The climate shocks that our statistical models tell us elevate security risks are now common and pervasive.

Number of countries with unstable political institutions is at historic high



Globalization and other trends have undermined global political capabilities

#### USDA



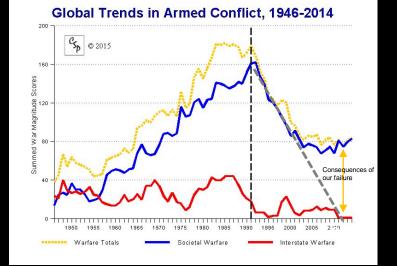
All the other environmental and resource challenges continue apace

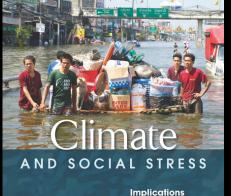
It wasn't long ago that we imagined that catastrophic climate change impacts were a problem for future generations.

These are potent dangers right now, made worse by other unfavorable trends that also shape security risks.

The post-1990 trend toward less global insecurity is in reversal.

Unanticipated and poorly managed climate shocks are partly to blame.





for Security Analysis

NATIONAL RESEARCH COUNCIL

John Steinbruner, 1941-2015

Don't pretend that currently dominant tools and methods will answer our questions.

Inertia drives investment in integrated assessment models, in predictive conflict models, but innovations languish.

### AN APPROACH TO ANTICIPATING RISKS

**Recommendation 6.3:** The intelligence community should establish a system of periodic "stress testing" for countries, regions, and critical global systems regarding their ability to manage potentially disruptive climate events of concern. Stress tests would focus on potentially disruptive conjunctions of climate events and socioeconomic and political conditions.

# CHANNEL GUIDE

9:10 AM



◄		10:00 AM	10:30AM	11:00AM	11:30AM	12:00PM
501	FEAR	Violence (MA)	Instability	Climate Change	Water Scarcity	Resource Wars
502	DATA	Event-coding	Satellites	Crowd- sourcing	Big-Data	
503	ACTION	Peacekeeping	Investment	Insurance	Humanitarian Response	Resource Management
504	FUSIDN	Early Warning	Program Design	Rapid Response	Risk Assessment	Community Empowerment

Making people afraid isn't enough. Showering them with data isn't enough.

We need tools, techniques, methods that drive effective action and build vibrant coalitions

### Ē

# Focus on Risk

### Widespread anxiety over systemic risk.

Michigan AG: Flint water not even safe to 'bathe a newborn'

Published Jamaiey 25, 2016 - Featherie com 🛛 📫 878 🈏 0 🌩 1252 🔀 🔂





University of Missouri professor charged with assault in tracas with

Repairman fixes military wife's broke

We worry about linked risk more

Our worstcase scenarios are much worse



The decisionsupport needs are different

We need to embed in multi-risk communities and frameworks



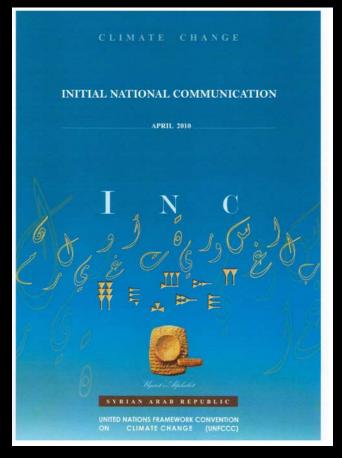


### Climate Change 2014: Impacts, Adaptation, and Vulnerability

IPCC Working Group II Contribution to AR5

The 10th Session of Working Group II (WGII-10) was held from 25 to 29 March 2014 In Volohama, Japan At the Session. the Surmary for Policymakers (SPM) of the Working Group II contribution to the IPCC Fifth Assessment Report (WGII AR5) was approved and the underlying scientific and technical assessment accepted





# What does an action agenda look like? Improve ability to measure

- Improve ability to measure climate-security risk
  - Rapidly
  - Usable
  - Targeted
- Where data are inadequate, fix the data problem
- Where methods are inadequate, create better methods
- Where practices are weak, develop better practices

Are we brave enough to grade ourselves against an action agenda?

- Convergence of views about what the problems are and the broad contours of what to do
- Why not leverage that convergence by using it as framework to grade actions
- Who is implementing the recommendations, and who is not?
- How can we encourage each other to do more and to do better?