



# Climate Change and National Security

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# Woodrow Wilson International Center for Scholars

**Nonpartisan, non-  
advocacy**

- **Facilitating dialogue among research, policy and practice communities**
- **Environment, development, security connections**
- **Lee H. Hamilton, President**



# 1<sup>st</sup> Step: Abandon your Stereotypes

- Environment - Not just for tree-huggers anymore
- Can't be left just to global environmental negotiations
- Natural resources and development, water and health
- Critical to livelihoods, national economies, conflict and stability
- Traditional security communities are now engaging on the threats and the opportunities



# Climate/Energy Connections

## Changing Geopolitics

- Science highlighting changed conditions
- Ups and downs on price of oil
- Economic actors finally moving
- Disaster-induced awareness – storms, floods, heat waves
- Public momentum – Nobel Prize, public demands, Copenhagen
- Political transitions
- New race for resources with China

# New Climate Superpowers

Examples of new power calculus not based on GDP, military size, population, nuclear weapons or more traditional determinants of power:

- Brazil
  - Amazon forest as “lungs of the Earth” carbon sink
  - The Saudi Arabia of Biofuels
- China
  - Demand for energy to keep up growth makes newly assertive foreign economic policy with geopolitical implications (policy on Sudan)
  - Essential veto on any climate effort

# Climate Security Momentum

- CNA, CSIS, CNAS, CFR
- UK and German government
- UN Security Council
- NIC Assessment and Global Trends 2025
- 2008 National Defense Authorization Act
  - Sec. 951
  - QDR

# DNI Admiral Dennis Blair

Climate change, energy, global health and environmental security are often intertwined, and while not traditionally viewed as 'threats' to U.S. national security, they will affect Americans in major ways. Such a complex and unprecedented syndrome of problems could cause outright state failure, or weaken pivotal states counted on to act as anchors of regional stability.



Adm. Dennis Blair, Director of National Intelligence, Annual Threat Assessment of the Intelligence Community for the Senate Select Committee on Intelligence, February 12, 2009

# 2007 National Defense Auth Act

- (g) Consideration of Effect of Climate Change on Department Facilities, Capabilities, and Missions
  - (1) First NSS and NDS “shall include guidance for military planners”
- (2) First QDR “shall also examine the capabilities of the armed forces to respond to consequences of climate change”



# U.S. National Security Strategy 2006

Globalization has exposed us to new challenges and changed the way old challenges touch our interests and values, while also greatly enhancing our capacity to respond. Examples include:

...

***Environmental destruction, whether caused by human behavior or cataclysmic mega-disasters such as floods, hurricanes, earthquakes, or tsunamis.*** Problems of this scope may overwhelm the capacity of local authorities to respond, and may even overtax national militaries, requiring a larger international response. These challenges are not traditional national security concerns, such as the conflict of arms or ideologies. But if left unaddressed they can threaten national security.

We have learned that:

Preparing for and managing these challenges requires the full exercise of national power, up to and including traditional security instruments.

# Danger of Oversell



**THE DAY AFTER TOMORROW**  
IN THEATRES WORLDWIDE 28 MAY 2004

WHERE WILL YOU BE?

- Tempting to focus on the messengers and the political debates, but instead must focus on the messages.
- Message is big change is coming.
- Need to plan for the worst, hope for the best. Not just hope.

# Climate Change Impacts

- **FIRST ORDER: CC & Physical Impacts**
  - Sea level, precipitation changes, extreme weather events, temperature changes, disease vectors, etc.
- **SECOND ORDER: Likely economic & social impacts**
  - Water access changes, agricultural productivity, human migration, complex humanitarian disasters,
- **THIRD ORDER: Threat Multipliers**
  - Intersections of the above with existing and expected threats, challenges and concerns

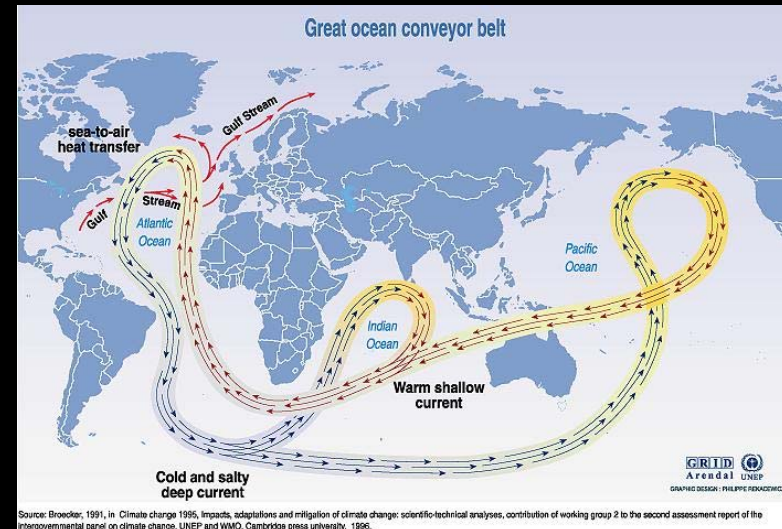
# But Conceivable Wildcard – Sudden Non-linear Change

## Abrupt Climate Change

Ocean Conveyor Belt  
Shuts Down

Mini Ice Age

“Chaos”



Source: UNEP



# Climate change as “threat multiplier”

- Exacerbating scarcity
- Increasing impacts from disasters
- Lowering agricultural productivity in most areas
- Lowering state capacity
- Lowering state legitimacy
- Contributing to poverty and grievance
- Fueling tensions among parties already in conflict

# Environmental degradation, resource scarcity, and climate change as underlying causes of conflict in dryland Sudan- including Darfur

- Increased human and livestock population pressures
- A 50 to 200 km southward shift of the boundary between desert and semi-desert has occurred since the 1930s
- Rainfall in Northern Darfur has dropped over 30% over 50 years
- Climate change and crop models forecast a drop of 20-70% in food production capacity in parts of the Sahel Belt by 2030
- Historical reconciliation mechanisms have broken down
- Pastoralists versus agriculturalists



# Climate Change and Terrorism

- Must be careful about making direct links
- Two steps – may exacerbate the underlying conditions that:
  - facilitate recruitment (heightened grievances)
  - enable training areas
  - provide safe haven (fragile states)
- Drive for energy independence - Move to stop “funding both sides of the war on terror”



# Connections that will Matter

- **Snow and Glacial melt on Tibetan Plateau**
  - Impacts for Mekong and agricultural, food, economic security downstream
- **Central Asia** – more water in short term, big trouble with upstream hydro vs. downstream irrigation two decades out
- **Southern Africa** – Halving ag production in 70 years; 40% decline in rainfall – what does this mean for migration?
- **Pakistan** – water declines, ag declines, coastal inundation



# Implications for Roles and Missions

- Increased migration flows from North and East Africa, the Middle East, and South Asia where severe climate impacts on fragile states
- In-country and in-region – Bangladesh India
- Europe and US



Photo: Gibraltar Border Crossing, Wikipedia



# Implications for Missions

- Disaster response and humanitarian relief (rescue, lift, engineering, peace and security)
  - Domestic
  - International
- Phase Zero – Hearts and Minds development missions - AFRICOM



Photo: Hurricane Katrina, NOAA

# Arctic Face Off

- Less ice and changing sea lane access
- Race for resources in the Arctic
- Less certain borders and greater sovereignty concerns



# Implications for Force Structure/Training

- Greater lift requirements for increased humanitarian missions
- Inundation of ports and low-lying infrastructure including airfields on small islands – Diego Garcia
- Operating in more intense climates – both hot and cold
- Drive for fuel efficiency and alternative fuel for transport, water supply
  - Benefit of lowering vulnerability of supply lines



Photo: Adrian Pingstone, Wikipedia

# New Pressures on Militaries

- Pressure on public budgets
  - Until recently, higher costs for fossil fuels
  - New public costs for adaptation and mitigation to climate change effects
  - Yet new and additional roles for militaries
- Pressure on militaries to reduce emissions
  - largest emitter in US for example
- Less willingness to give environmental exceptions for training and exercises

# Reactions to Climate Change Fueling New Conflict



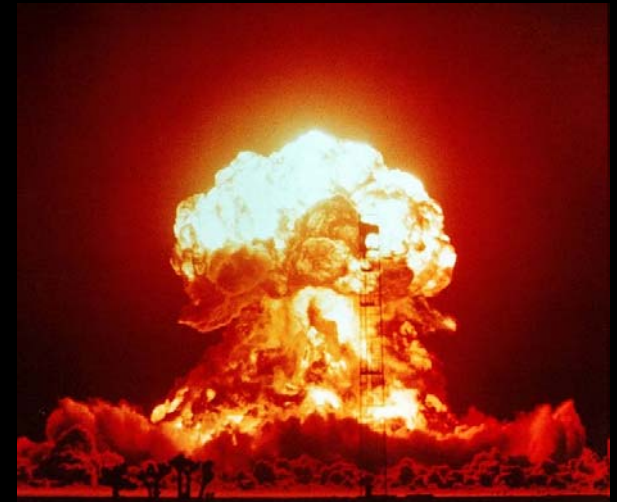
- EU 10% of transport to be biofuels by 2020
- Conversion of forests for palm oil plantations
- Doubling price of palm oil in a year
- Cut first, settle with communities later
- High dependence on forests for livelihoods of Indonesia's millions of poor

# Reactions to Climate Change

## Changing Vulnerabilities

### Increasing use of nuclear power

- More loose nuke material available for dirty bombs
- More nuclear weapon proliferation ambiguity?



### Increasing off-grid, smaller grid, or alternative fuel usage

- Lowers pipeline and fossil fuel dependence and undercuts power of those who would use oil leverage in political realm



Photos: Department of Energy



# Environmental confidence-building opportunities

- Environmental and natural disaster joint exercises as avenue for mil-mil exchange
- Using environmental management as a means to a security end
- End of Cold War - US-Norway-Russia on radioactive contamination
- NATO – Partnership for Peace
- US Central Command with Central Asian Republics



Photo: U.S. Navy

# Decision-making and Uncertainty

- Military leaders must make decisions based on incomplete information on the battlefield all the time.
  - If you wait for complete information, you're dead.
- Militaries plan, plan, plan for all contingencies
  - Plan for all contingencies, including low probability, high negative outcome
- Must do the same for climate change

Many thanks!

For More Information

Woodrow Wilson Center Web Page

<http://www.wilsoncenter.org/ecsp>

New Security Beat Blog

<http://newsecuritybeat.blogspot.com>