Thesis Presentation:
Climate Insecurity and Governance Competition: The Near-Term Geopolitical Consequences of Destructive Climate Events.

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Defense Analysis 698
Class of December 2022
1. The Problem
2. Research Question
3. The Approach
4. The Findings
5. Recommendations
The Problem

**Climate Security**
- 2022 NSS: designates climate change as an existential threat and a transnational shared challenge.
- IPCC: as the world warms, there will be an increase in the intensity and frequency of natural disasters and extreme weather events.
- IPCC: over 3.3 billion people live in areas designated as highly vulnerable to climate change.

**Adversarial Competition**
- New and more frequent methods of competition below the threshold of armed conflict are becoming the norm.
  - Economic statecraft
  - Cyber
  - Political warfare
  - Military and humanitarian aid

Source: IMCCS Climate Security Framework
## DoD Climate Adaptation Strategic Framework, 2021

### Lines of Effort (with Focus Areas)

<table>
<thead>
<tr>
<th>Lines of Effort</th>
<th>Strategic Outcomes</th>
<th>End State</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Climate-Informed Decision-Making</strong></td>
<td>Climate change considerations and impacts included in all relevant and applicable DOD decisions</td>
<td>Ensure the DOD can operate under changing climate conditions, preserving operational capability and enhancing the natural and man-made systems essential to the Department’s success</td>
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<tr>
<td>1. Climate Intelligence</td>
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<tr>
<td>1. Strategic, Operational, and Tactical Decision-Making</td>
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<tr>
<td>1. Business Enterprise Decision-Making</td>
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<tr>
<td><strong>Train and Equip a Climate-Ready Force</strong></td>
<td>An agile force, trained and equipped to operate effectively in all anticipated climatic conditions</td>
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<tr>
<td>2. Train Safely in Extreme Conditions</td>
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<tr>
<td>2. Assess Current and Future Equipment</td>
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<tr>
<td>2. Assess and Adjust Requirements and Acquisition</td>
<td></td>
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<tr>
<td>2. Test Equipment for Climate Effects</td>
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<tr>
<td><strong>Resilient Built and Natural Infrastructure</strong></td>
<td>Built and natural infrastructure necessary for successful mission preparedness, military readiness, and operational success in changing conditions</td>
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<tr>
<td>3. Installation Resilience</td>
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<tr>
<td>3. Preserve Test and Training Space</td>
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<tr>
<td>3. Ecosystem Services</td>
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<tr>
<td><strong>Supply Chain Resilience and Innovation</strong></td>
<td>Uninterrupted access to key supplies, materials, chemicals, and services</td>
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<tr>
<td>4. Assess Supply Chain Resilience</td>
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<td>4. Harden and Shift to Onshore</td>
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<td>4. Leverage Purchasing Power</td>
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<tr>
<td><strong>Enhance Adaptation and Resilience through Collaboration</strong></td>
<td>Reduce adaptation costs and build unity of purpose through meaningful engagement with DOD stakeholders</td>
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<tr>
<td>5. Interagency and Intergovernmental</td>
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<td>5. Partner Nations</td>
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<tr>
<td>5. Community Resilience</td>
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</tbody>
</table>
### Army CS-IP LOEs

<table>
<thead>
<tr>
<th>Lines of Effort</th>
<th>Ways and Means</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Installations</td>
<td>• Resilient energy and water supply</td>
<td>• Infrastructure resilience optimized</td>
</tr>
<tr>
<td></td>
<td>• Carbon free electricity</td>
<td>• Infrastructure sustainability enhanced</td>
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<tr>
<td></td>
<td>• Efficient and sustainable infrastructure</td>
<td>• Land management adapted to climate change risks</td>
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<tr>
<td></td>
<td>• Non-tactical fleet electrification</td>
<td>• Future access to training and testing lands secured</td>
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<tr>
<td></td>
<td>• Sustainable land management</td>
<td>• Army GHG emissions mitigated</td>
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<tr>
<td></td>
<td>• Enhanced planning</td>
<td></td>
</tr>
<tr>
<td>2. Acquisition and</td>
<td>• Deployment of advanced technology</td>
<td>• Sustainment demand reduced</td>
</tr>
<tr>
<td>Logistics</td>
<td>• Reduced fuel consumption</td>
<td>• Operational and contingency basing capability increased</td>
</tr>
<tr>
<td></td>
<td>• Future contingency basing</td>
<td>• Climate resilience strengthened</td>
</tr>
<tr>
<td></td>
<td>• Clean procurement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Resilient supply chains</td>
<td></td>
</tr>
<tr>
<td>3. Training</td>
<td>• What the Army trains</td>
<td>• Train and educate the Army to operate in a climate-altered world</td>
</tr>
<tr>
<td></td>
<td>• How the Army trains</td>
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</tbody>
</table>
“How can actors leverage climate insecurity for regional influence?”
**Climate Security**: the interactions between change in global, regional, or local climate patterns and political, military, economic, and social risks/stresses to peace, security, and stability.

**Governance Competition**: When a third-party actor challenges the legitimacy, authority, and/or influence of a governing body over a population by undermining, circumventing, or substituting governing efforts.
Governance Competition Model

Existing Governance

Challenger(s)
Actors in Governance Competition

Support Governance

Illegal/Unacceptable Means

Gray Actors
External State Actors

Dark Actors
Violent Extremist Organizations/Transnational Criminal Organizations

Commercial/Commercial

Light Actors
NGOs/IGOs
External State Actros

Legal/Acceptable Means

Gray Actors
Rival Political Parties
Governance Competition Model

- **Nexus Event(s)**
- **Methods of Influence**
- **Target Group(s)**
- **Intermediate Objectives**
- **Strategic Objectives**
Governance Competition Model

Existing Governance

Challenger(s)

Nexus Event(s)

Methods of Influence

Target Group(s)

Intermediate Objectives

Strategic Objectives
Case Studies

Syrian Civil War

Central America

Pacific Islands
<table>
<thead>
<tr>
<th>Existing Governance</th>
<th>Challengers</th>
<th>Strategic Objectives</th>
<th>Intermediate Objectives</th>
<th>Target Group(s)</th>
<th>Method of Influence</th>
<th>Nexus Event(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syrian Government</td>
<td>ISIS</td>
<td>Establishment of an Islamic Caliphate</td>
<td>Fear/Increase Legitimacy</td>
<td>Civil Population/ Govt Officials</td>
<td>Violence/Extortion</td>
<td>Drought</td>
</tr>
</tbody>
</table>
Central America

MAP 1
CENTRAL AMERICA: ANNUAL AVERAGE MONTHLY TEMPERATURE BY DEPARTMENT, 1950-2000 AVERAGE AND SCENARIO A2 UP TO 2100
(°Celsius)

A. 1950-2000 average
B. 2020
C. 2050
D. 2100

Source: ECLAC, CCADSCA, USAID, DANIDA (2012a)

CENTRAL AMERICA: EVOLUTION OF RECORDED EXTREME EVENTS OVER TIME, 1931-2015
(By number and type)
## Governance Competition Model: GHEN

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<th>Method of Influence</th>
<th>Nexus Event(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHEN State Governments</td>
<td>MS-13 Mara-18</td>
<td>Freedom of Maneuver/Finance</td>
<td>Fear/Increase Legitimacy</td>
<td>Civil Population/Govt Officials</td>
<td>Violence/Extortion</td>
<td>Drought/Hurricanes</td>
</tr>
<tr>
<td>State Governments</td>
<td>PRC</td>
<td>Regional Economic Access &amp; Influence</td>
<td>Increase State Partnerships</td>
<td>Civil Population/Govt Officials</td>
<td>Econ State Craft/Relief</td>
<td>Drought/Hurricanes</td>
</tr>
<tr>
<td>Nicaraguan Government</td>
<td>Russia</td>
<td>Regional Access &amp; Influence</td>
<td>Increase State Partnerships</td>
<td>Nicaraguan Government</td>
<td>Military Aid/Relief</td>
<td>Drought/Hurricanes</td>
</tr>
</tbody>
</table>
At-risk coastal urban areas that are 30 feet above sea level or lower.

Chinese Belt and Road Initiative. The Maritime Silk route crosses through the Pacific Islands.

Island Chain Strategy to block access into the Pacific.
## Governance Competition Model: Pacific Islands

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<th>Nexus Event(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PICs</td>
<td>PRC</td>
<td>International Environment favorable to PRC</td>
<td>Security &amp; Economic Agreements</td>
<td>Civil Population/ Govt Officials</td>
<td>BRI/ Disinformation/ IUUF/ Extortion</td>
<td>Sea Level Rise/ Extreme Weather Events (cyclones)</td>
</tr>
</tbody>
</table>
Findings

• Destructive climate events can serve as a threat multiplier

• Climate insecurity increase the chances of governance and adversarial competition

• Climate insecurity provides an opportunity that state and or non-state actors can exploit

• Climate insecurity has geopolitical implications in the near term

• Climate security creates a field for the US to advance influence
1. Strategic Adjustment
   DoD Climate Security LOE Defend Forward

2. Tactical Employment:
   Special Operations Forces Civil Affairs
We will defend forward to disrupt or halt malicious cyber activity at its source, including activity that falls below the level of armed conflict. We will strengthen the security and resilience of networks and systems that contribute to current and future US military advantages. We will collaborate with our interagency, industry, and international partners to advance our mutual interests. – US DoD Cyber Strategy 2018
We will defend forward to disrupt or halt malicious *Governance Competition* at its source, including activity that falls below the level of armed conflict. We will strengthen the security and *governance and state resiliency to climate events* that contribute to current and future US military advantages. We will collaborate with our interagency, industry, and international partners to advance our mutual interests. – Proposed US DoD CASF LOE
Prioritize and Identify Climate Security
Named Areas of Interest

Prioritize Regions
Identify Fragile Areas
Identify Climate Vulnerable States
The 95th Civil Affairs Brigade (Special Operations) (Airborne) provides the nation’s premier civil reconnaissance and engagement force to understand and influence the human component of the land domain to advance the nation’s global priorities.

On any given day...
~ 300 Soldiers deployed to 40 countries
**Mission:** Civil Affairs mission is to **Understand** and **Impact** the Civil Domain to support of **US objectives**

**Civil Domain**
- Physical
- Social
- Information

**Understand**
- Open-Source Research/Publicly Available Information
- Civil Reconnaissance
- Civil Engagement
- Civil Information Management
- Human Network Analysis

**Impact**
- Non-Lethal Targeting
- IA/Joint/Combined Efforts
- Civic Action Projects
- Support Governance
- Support to FID
US Army SOF CA: “Hub & Spoke”

- Department of State
- PREPARE Action Plan
- NGOs/IGOs
- Civil Engineers
- B3W
- Climate Scientist
- Reserve CA
Adversarial Competition

Employ SOF CA

Vulnerable State → Climate Insecurity → Governance Competition → Adversarial Competition
Governance Competition Model

Existing Governance

Challenger(s)

Resilience Capacity

Influence

Nexus Event

Methods of Influence

Target Group

Intermediate Objectives

Challenger’s Objectives

Impact of Climate Events

Effectiveness

Threshold

Mitigate

Disrupt

Mitigate

Disrupt
Questions?

“To win one hundred victories in one hundred battles is not the acme of skill. To subdue the enemy without fighting is the acme of skill.”

-Sun Tzu