U.S. Environmental Security: Defining It To Matter

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Project Nuts & Bolts

- Project Overview
- Why This Research?
- Background
- What is ES?
- U.S. Gov't ES Review
- Survey Results
- Workshop Results
- Conclusions

GMU Environmental Security Project

- Project Titled: *U.S. Environmental Security: Defining It To Matter*
- Master of Science Thesis Project under GMU Dept. of Env. Science & Policy
- Thesis Committee
  - Dr. Susan Crate
  - Dr. Chris Parsons
  - Dr. Mishkat Al Moumin
- Started informal research in 2004
- Accelerated informal research in 2006
- Project proposal approved in Jan. 2008

Project Research Goal

- To Understand how:
  - U.S. <u>national security</u> and homeland security <u>practitioners</u> and <u>policymakers</u> conceptualize, understand, and could yield value from environmental security?
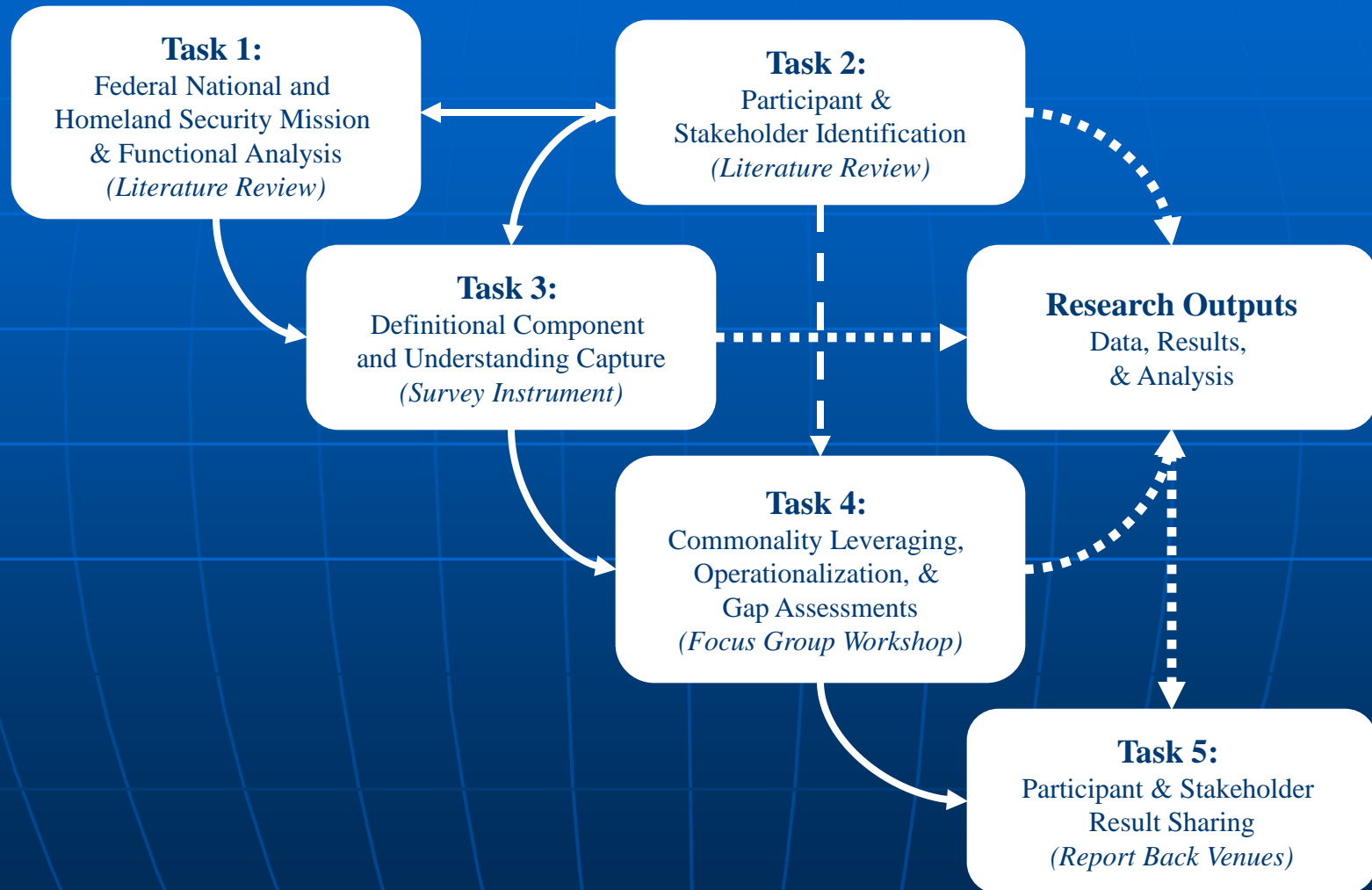
Project Research Objectives

- Research Objectives:
  - Capture stakeholder <u>definitional components</u> and understanding of environmental security
  - Identify <u>common attributes</u> that conceptually bridge, operationalize, and could add value in meeting institutional mission, policy, and operational challenges
  - Understand current <u>functional capability gaps</u> and disconnects within stakeholder communities of practice
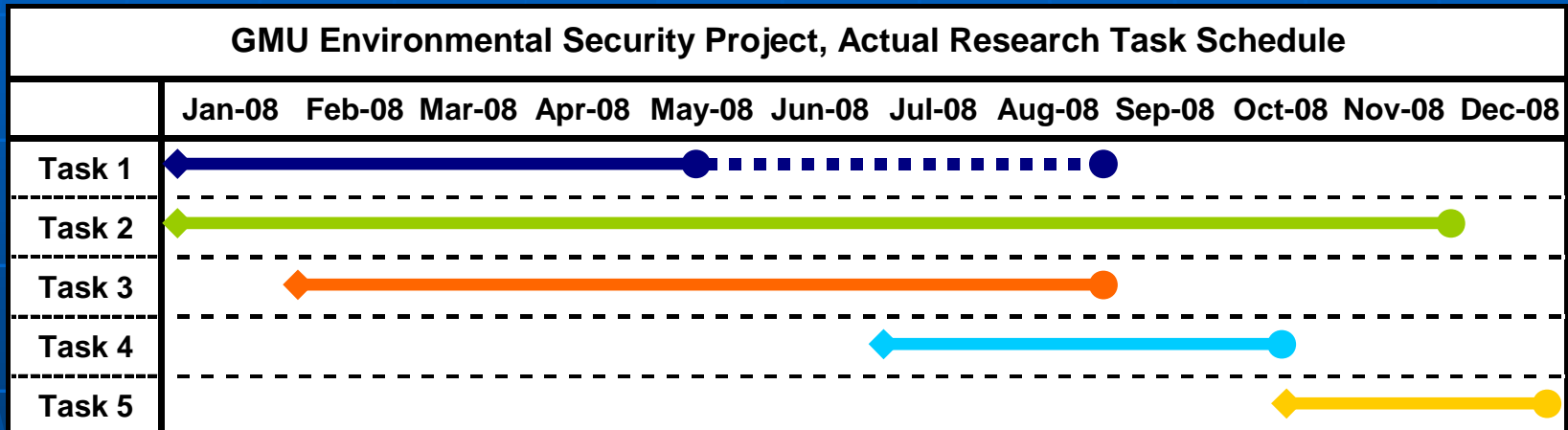
Research Methods Overview

- Pragmatic Action Research Approach
- Research Methods Used:
  - Literature Reviews *(Task 1 & 2)*
  - Email Survey *(Task 3)*
  - Interactive Workshop *(Task 4)*
- Report Back
  - Draft Comments Process *(Task 5)*

Project Overview By Task

Task 1:
Federal National and
Homeland Security Mission
& Functional Analysis
(Literature Review)

Task 2:
Participant &
Stakeholder Identification
(Literature Review)

Task 3:
Definitional Component
and Understanding Capture
(Survey Instrument)

Research Outputs
Data, Results,
& Analysis

Task 4:
Commonality Leveraging,
Operationalization, &
Gap Assessments
(Focus Group Workshop)

Task 5:
Participant & Stakeholder
Result Sharing
(Report Back Venues)

Project Timeline

- Project proposal approved in January 2008
- GMU HSRB approval in March 2008

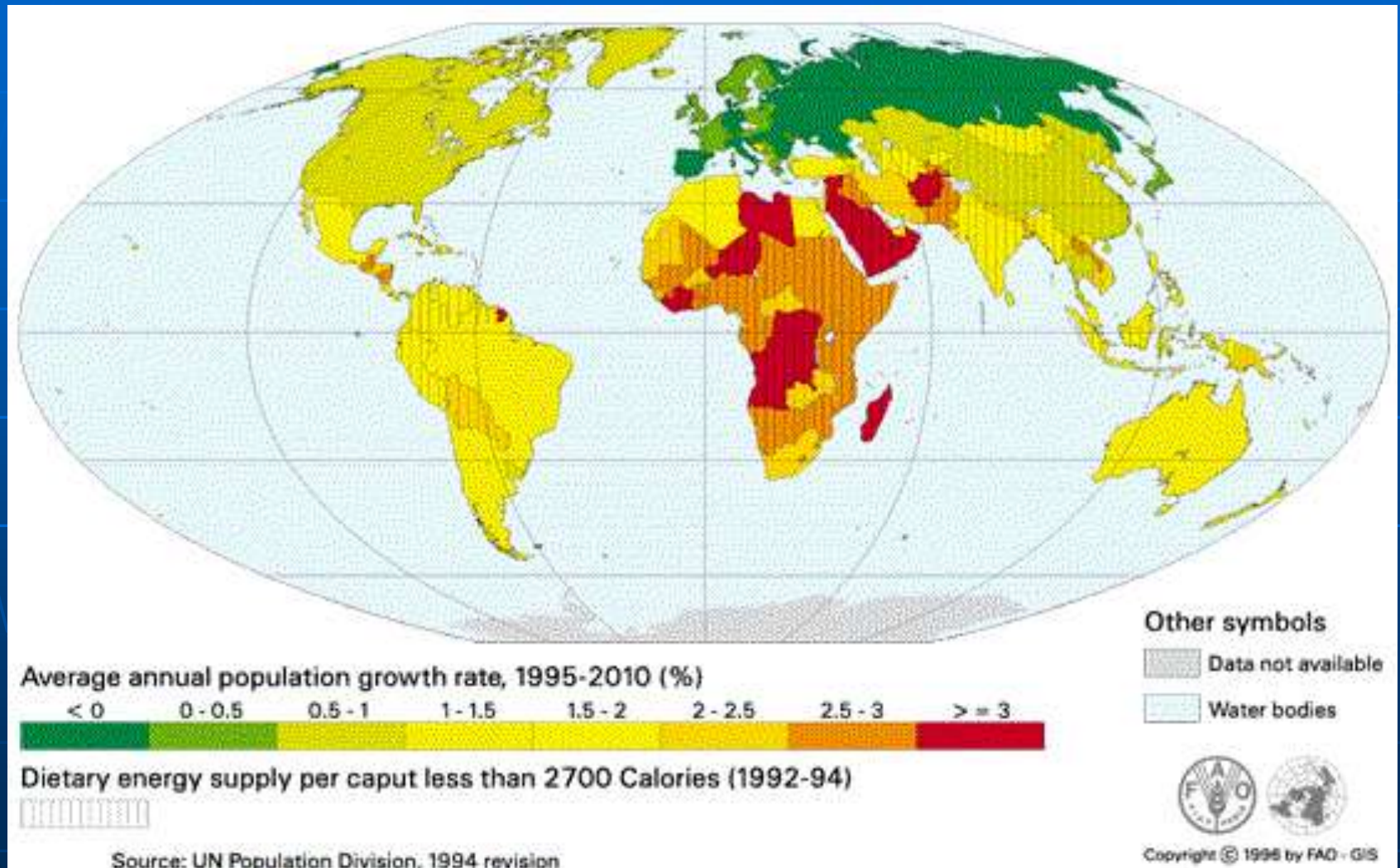| GMU Environmental Security Project, Actual Research Task Schedule											
	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08
Task 1												
Task 2												
Task 3												
Task 4												
Task 5												

- Survey period May – August 2008
- Workshop held on September 18th, 2008
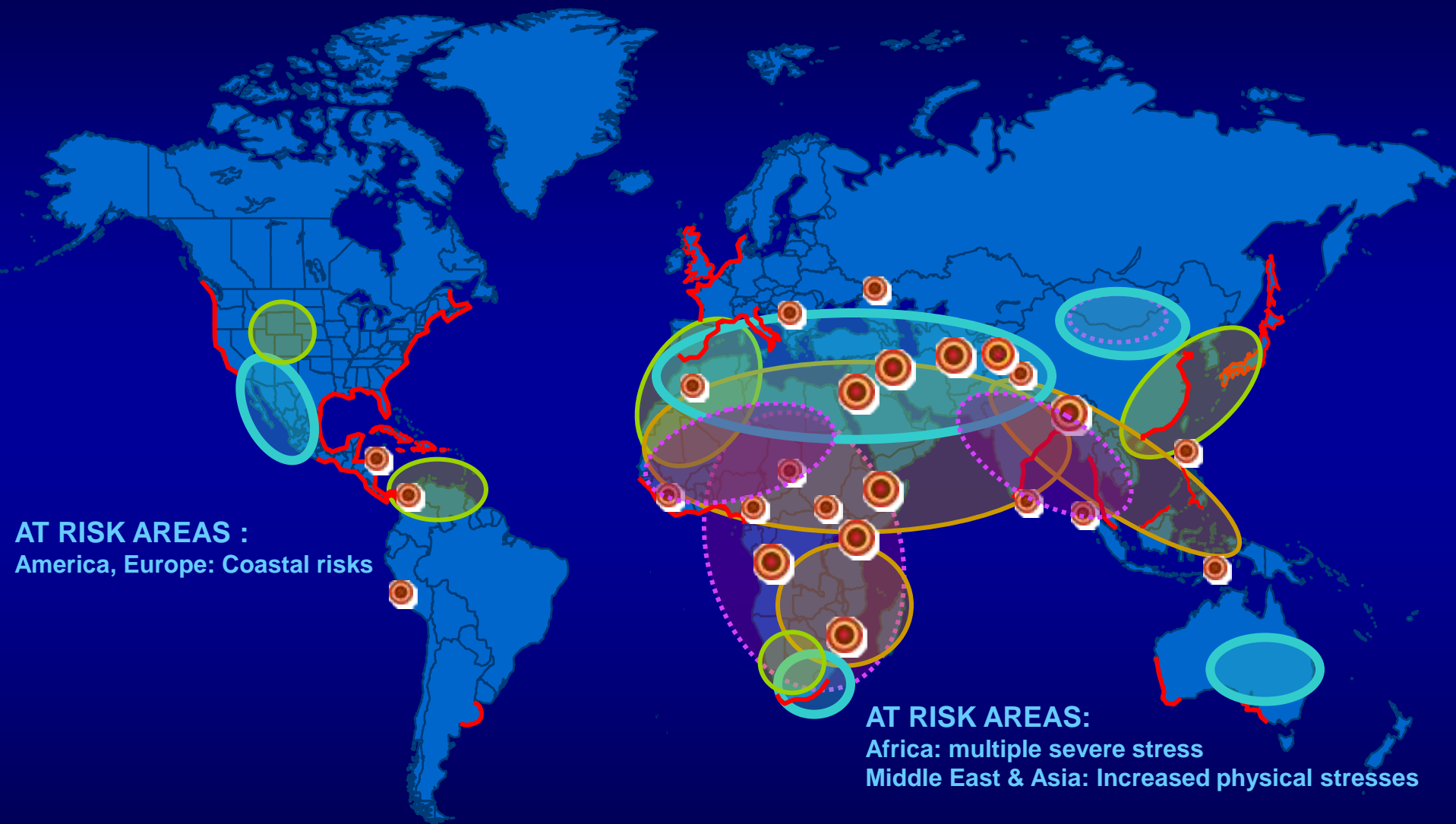- Thesis Defense on November 17th, 2008

Why This Research Now?

- Mega-Trends - global resources decline and environment stress (NIC & UN-ME)
- GWOT and future regional stability threats
  - Open Source Warfare (John Robb)
- DOD Future Force Transformations
  - Leviathan & SysAdmin paradigm (T. P.M. Barnett)
  - AFRICOM stand-up
- Enable future interagency mission synergy
- Inform New U.S. Administration Policy

Population Growth & Food

Average annual population growth rate, 1995-2010 (%)

| < 0 | 0 - 0.5 | 0.5 - 1 | 1 - 1.5 | 1.5 - 2 | 2 - 2.5 | 2.5 - 3 | > = 3 |

Dietary energy supply per caput less than 2700 Calories (1992-94)

Other symbols
Data not available
Water bodies

Source: UN Population Division, 1994 revision

Copyright © 1996 by FAO - GIS

Source: UN Population Division
Adapted from: W.C. King, U.S. Army

Threat Multiplier Stresses & Risks Out To 2036

AT RISK AREAS :
America, Europe: Coastal risks

AT RISK AREAS:
Africa: multiple severe stress
Middle East & Asia: Increased physical stresses

Water stress
Demographic stress
Crop decline

Hunger
Coastal risk
Recent history of conflict

Source: DCDC
Adapted from: B. Goran, USACE

Topic Background

- Early dialog on redefining security started in 1970s and 1980s

- End of Cold War triggered new dialog and inquiry into human security and environmental security paradigms

- Late-1990s push to define and understand implications of the ES concept

- Since 9/11, ES concept efforts continued at international level but with more limited U.S. focused activities and scholarship

What is Environmental Security (ES)?

- High diversity of definitions for ES concept
  - 24+ definitions per King 2008
- 1998 AEPI two tier survey study determined U.S. and international set of common concept components
- Contested Grounds (1999) proposed definition conceptual categories
- 2000 AEPI study highlighted definitional problem and examined how to make concept actionable
- Definitions continue to multiply and the academic debate continues…

ES Definition Spectrum

- ES component of Human Security paradigm *(UNDP Report 1994)*
- ES concept that resource competition and stress augments or triggers conflict
- "Real-politik" nation-centric security issues and maintenance of defense capabilities
- Environmentalist plot to conceptually "muddy the waters" and siphon defense resources

U.S. Environmental Security

- White House and DOD embraced "real-politik" definition (DODD 4715.1) and built consensus in 1990s

- ES concept or mention of environment dropped from National Security Strategy (NSS) since 2000

- Post-9/11 national security focus on GWOT, homeland security, Afghanistan, and Iraq

- NSPD-44 & DODD 3000.5 officially brought in human security considerations but still no mention of environmental security

Renewed U.S. Interest in ES

- Recent renewed interest in ES related to:
  - Stability, Security, Transition, and Reconstruction (SSTR) via DODD 3000.5
    - CENTCOM (Water, ES partnering & engagement)
    - AFRICOM (Human security & engagement)
  - Forward Basing Issues
    - Post-conflict env. challenges in Iraq & Afghanistan
  - Energy Security
    - EPAct 2005, EISA, DSB Energy report, LL Iraq
  - Climate Change "Ides of March" in 2007
    - CNA report, DOD FY08 Authorization Act - Sec. 931, SSI report, SERDP 9-02/05, environmental shock

On-going ES Challenges

- Lack of common and recognized ES definition
- Lack of U.S. national security policy and strategy mandate for ES activities, even when developed though operational necessity
- Limited understanding of U.S. ES players, existing capabilities and need gaps

U.S. Government ES Review (1)

- Task 1 initial literature review (NSS, NMS, etc.) meant to better understand:
  - U.S. national & homeland security players
  - Their mandates & missions
  - Potential Task 2 POCs
- Broadened Task 1 analysis to systematic look at:
  - "Grand Strategy" national security process
  - Executive Branch departments' / agencies' mission and organizational structures
  - Environmental and development players

U.S. Government ES Review (2)

- Systematically examined missions of:
  - Executive Office of the President entities and Cabinet level departments
  - Federal Agencies, Independent Establishments & Government Corporations
    - International & Domestic (nat'l & homeland security)
    - Domestic Only (homeland security oriented)
- Identified missions focused on:
  - Security
  - Environment
  - Security & Environment
  - Development

U.S. Gov't Orgs w/ ES Missions

International and/or Domestic Orientation

- Office of Science & Technology Policy (OSTP)
- Department of State (DOS)
- Department of Defense (DOD)
  - Department of Army
    - U.S. Army Corps of Engineers
- Department of Energy (DOE)
- Department of Health & Human Services (DHHS)
- Department of Justice (DOJ)
- Organization of American States (OAS)

Domestic Orientation

- Department of Homeland Security (DHS)
  - United States Coast Guard (USCG)
- Defense Nuclear Facilities Safety Board

Survey Methods

- Task 2 efforts identified 618 contacts via:
  - Literature review
  - Professional contact referrals
  - Public environment & defense venues
- MS Word survey (Task 3) sent via email in six email blasts from Apr.-Aug. 2008
- Emails included a survey form, a project description, and a GMU HSRB informed consent disclosure addendum

Survey Response & Groups

- 30 in-scope survey's received
- Respondents came from:
  - U.S. Army (including USACE)
  - U.S. Air Force (USAF)
  - Intelligence community
  - Defense-oriented non-profits
  - Homeland security
  - Federal environmental agencies

Survey Results (1)

- 97% of all respondents were familiar with term *environmental security*
- Wide variety of definitions, but…
- Good consensus on relevance of most AEPI (1998) ES definitional components
  - *Public safety from environmental dangers*
  - *Natural resource scarcity*
  - *Maintenance of a healthy environment*
  - *Environmental degradation*

Survey Results (2)

- Weaker agreement on relevance of:
  - *Prevention of social disorder and conflict*
- Confirmed strong link and relationship between ES and sustainability
- Most acknowledged ES mission considerations and/or responsibilities
- Identified lack of official ES definitions and inadequate policy mandate
- However, strong interest in concept & its ability to support their missions

Participant Identified ES Issues

- Sustainability & Human Security
- Energy Security (local, regional, & global)
- Climate Change (threat multiplier)
- Water Resources (quantity & quality)
- Food Security & Land-Use issues
- Hazardous materials, contaminants, & UXO
- Solid and hazardous wastes (Basel Convention)
- Soldier & local population health protection
- Natural resource management & restoration
- Natural hazard prevention & response

New ES Policy Mandate Helpful? (1)

- Most felt an ES mandate helpful by:
  - Providing "cover" and visibility with top leadership
  - Making the mission connection for those working with missions that involves environmental components
  - Encouraging proactive communication, awareness, and planning for future mission readiness, incl. OCONUS
  - Consistent effort could prevent or mitigate future conflicts

New ES Policy Mandate Helpful? (2)

- Most also felt an ES mandate helpful by:
  - Enabling better interagency and external partnering
  - Requiring obligation of resources to meet mission needs
  - Assist with disaster recovery and resilience goals
- However, environmental professionals thought they had sufficient ES mandate & concerned over mission / resource encroachment by military

Workshop Results

- Participants generally confirmed survey findings and emphasized:
  - DODD 3000.5 equalized defense mission priority between combat and SSTR (i.e., human security) missions
  - Soldiers "Get It" - Increased mission interest and need for ES approaches and capabilities
  - Need for ES policy and approaches to support U.S "smart power" planning & implementation
  - U.S. COCOMs already have ES interests / activities that were developed out of necessity

U.S. Combatant Commands

COCOMs' ES Interests & Activities (1)

- CENTCOM
  - ES partnership activities in Central Asia - Targeting "soft underbelly" of terrorism
- SOUTHCOM
  - Disaster response and ES training
- AFRICOM
  - Interest in natural resource scarcity / wealth and its security implications
- EUCOM
  - Post-Soviet environmental degradation challenges and its impacts on soldiers health

COCOMs' ES Interests & Activities (2)

- NORTHCOM
  - Interest in implications of climate change in the Arctic Ocean,
- PACOM
  - Tsunami impact response & mitigation
- CONUS
  - Disaster resilience and response support activities (Katrina, Rita, etc.)

Identified ES Opportunities (1)

- U.S. ES mandate could be useful to:
  - Provide policy legitimacy & leadership for existing activities developed through necessity
  - Enable coordinated development of:
    - Proactive environmental conflict monitoring
    - Engagement, partnering, & development efforts
    - Disaster resiliency & response mechanisms

Identified ES Opportunities (2)

- U.S. ES mandate could also support:
  - Forward deployed base ES activities
  - Post-conflict & counter-insurgency engagement
    - Recovery methods, resources, & activities
    - "Open Source" approach advocated by J. Robb & S. Beebe
      - Example - Famine Early Warning System Network (FEWS NET)

Project Conclusions

- Nat'l security practitioners can broadly agree on most ES definition components
- ES increasingly recognized as enabling concept for human security mission
- U.S. needs ES policy to address identified gaps and develop the needed capabilities
- Project and findings are very timely
- Great opportunities for follow up research

Future Research

- ES linkages and value added across conceptual, policy, regional, and local
- ES case studies from operational and tactical level
- Compile and analyze needs to develop refined U.S. national ES policy
- Develop ES indicators / analysis methods
- U.S. Government institutional mission, functional, and capabilities analysis
- ES and sustainability policy crosswalks

Academic Contribution

- New contribution toward realizing Dalby's "fourth generation" of ES field of study
- Helped address limited U.S. Government oriented ES policy and practical research
- Captured national security stakeholder definition components, understanding, and institutional relevance
- New U.S. specific stakeholder knowledge base to support future research

Broader Contribution

- Developed U.S. stakeholder knowledge base for development of policies, programs, and proactive tools
- Educated national and homeland security stakeholders in conceptual paradigm
- Assists stakeholders to incorporate into policy and institutional frameworks
- Reinforces new context for cooperation with international allies and partners
- Helps open new public policy opportunities

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Questions
or
Comments?