

Climate Change: an Opportunity for Civil-Military Collaboration

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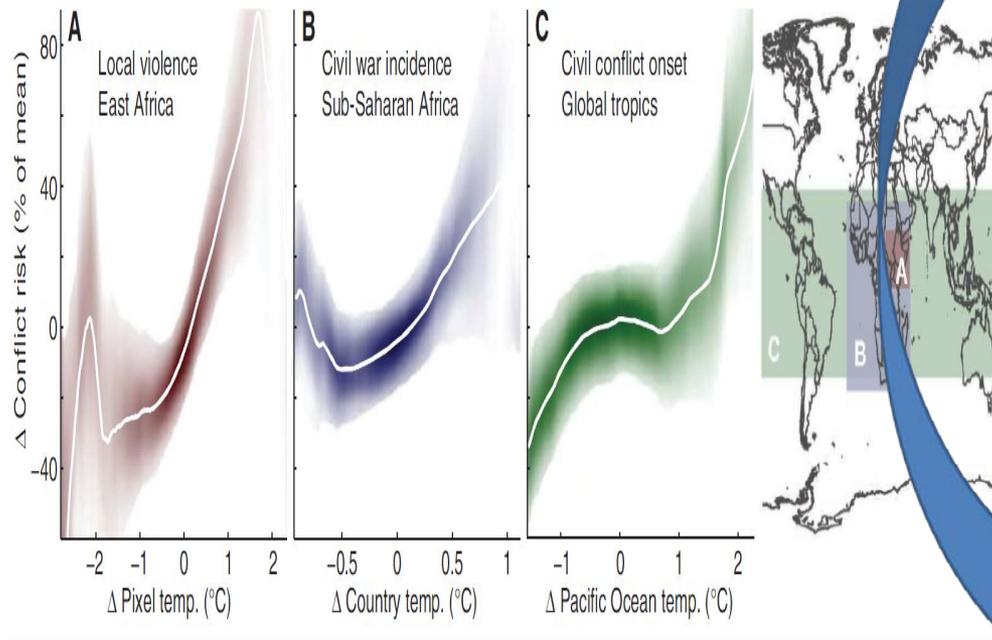
Road Map

- DOD and Environmental Security
- Wicked Problems and Facilitated Dialogues
- Army Studies Project: A Conceptual Model for Considering the Impact of Emerging Stressors on Future Disasters



Why Are We Here?

Climate and conflict across spatial scales. Evidence that temperature influences the risk of modern human conflict: (A) local violence in 1° grid cells, (B) civil war in countries, and (C) civil conflict risk in the tropics. The map depicts regions of analysis corresponding to nonparametric watercolor regressions in (A) to (C). The color intensity in (A) to (C) indicates the level of certainty in the regression line.



National Security

Water Security

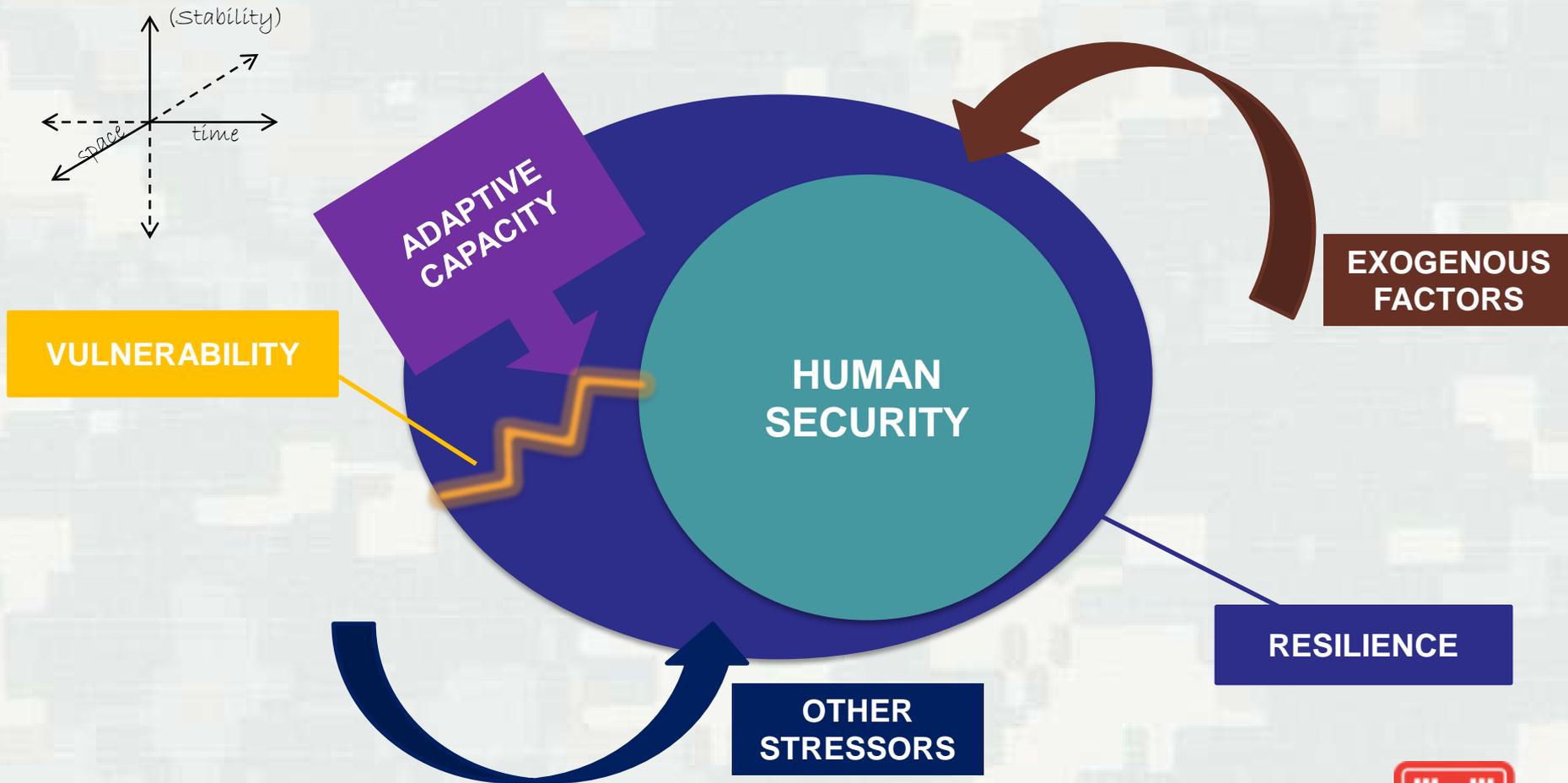
Human Security



Why Are We (still) Here?

RELATING

RESILIENCE | VULNERABILITY | ADAPTIVE CAPACITY



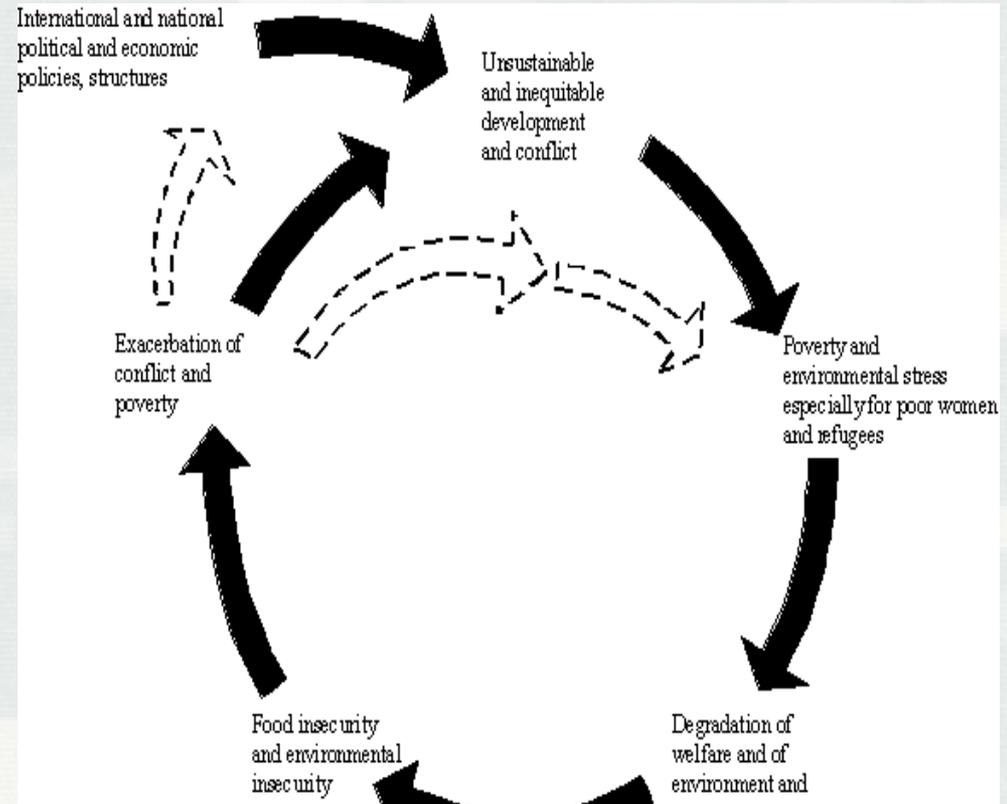
US Africa Command: ENSEC

“civil-military partnerships with AFRICOM as a way to promote stability through sustainable social-ecological practices”



Environmental Security: a wicked problem

Military operations can have severe environmental consequences on the very areas authorities are trying to protect...existing stability operations can be affected in the short-term

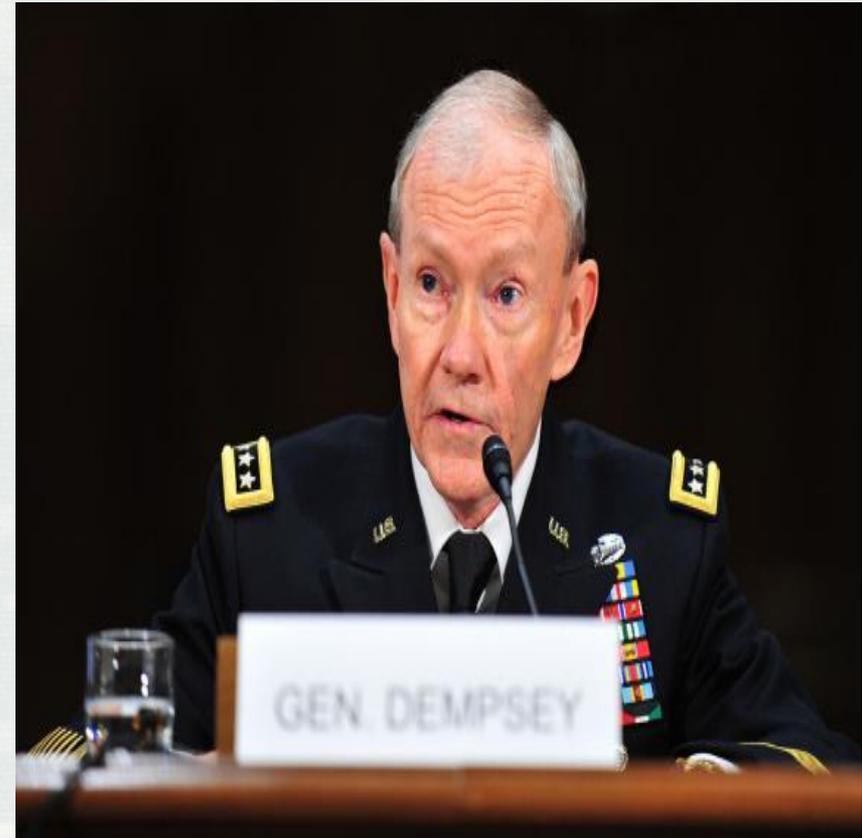


GEN Dempsey on Wicked Problem Solving

5 → 55

to

55 → 5



GEN Martin Dempsey, Testimony on 7/26/2011 Session of Senate Armed Services Committee



Current Technical Transfer

EUCOM

AFRICOM

SOUTHCOM

Climate/Water Security
Facilitated
Dialogue

Disasters
Training
Course

12
Environmental
Security
Symposiums

Civil-Military
Facilitated
Dialogues

SMART
Water Matrix



Army Studies Project: Conceptual Model for Interacting Multiple Stressor Events (FY15)

ERDC/CERL TR-XX-DRAFT

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Program Title *<fill in if applicable, otherwise delete text and paragraph marks>*

A Conceptual Model for Considering the Impact of Emerging Stressors on Future Disasters

Report Subtitle *<fill in if applicable, otherwise delete text and paragraph marks>*

First M. Lastname1, First M. Lastname2, and First M. Lastname3 Month Year

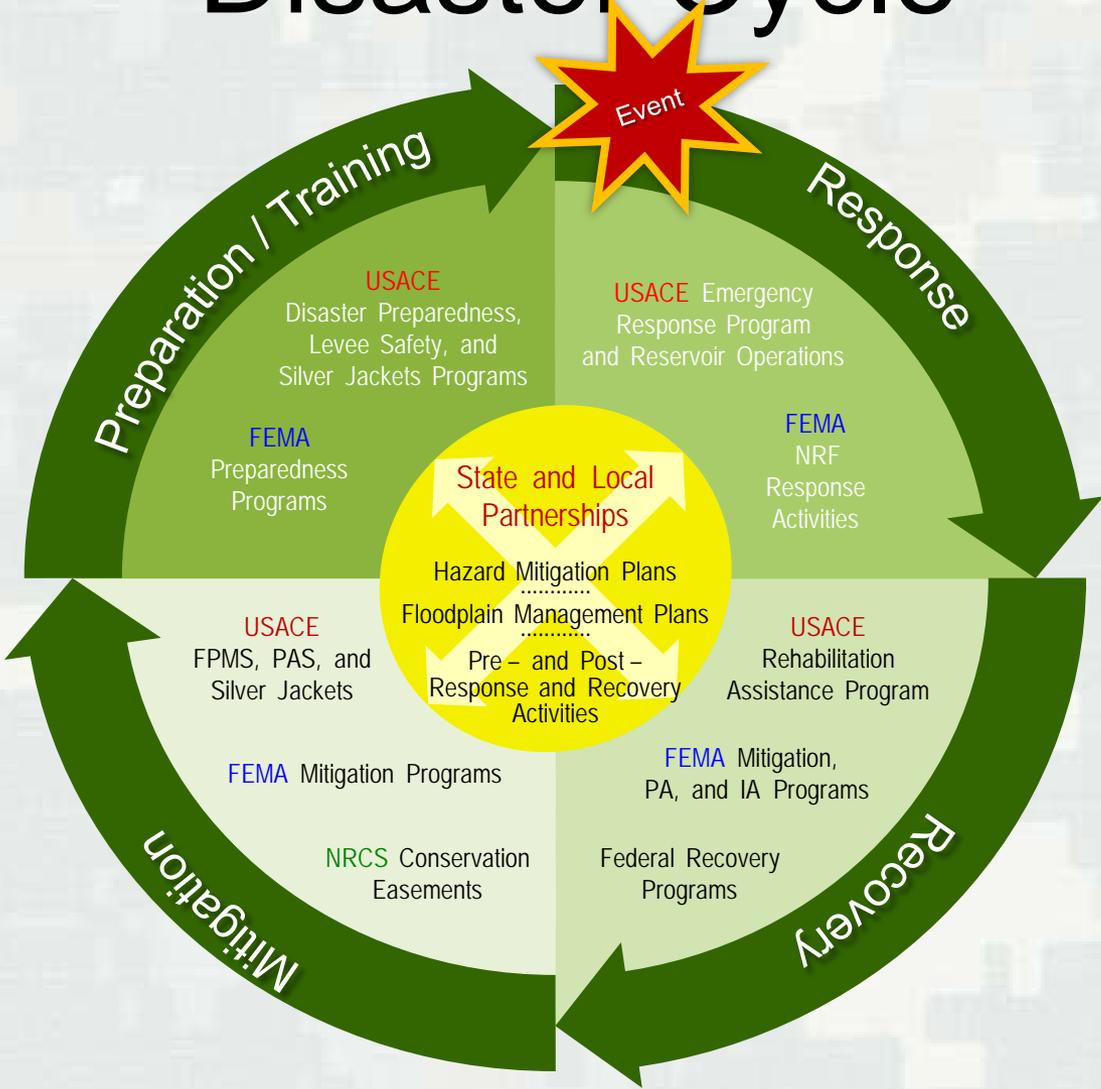


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- Key Findings
- Conceptual Model
- Research Design
- Follow on Research



Disaster Cycle



Climate Change as a Forcing Function

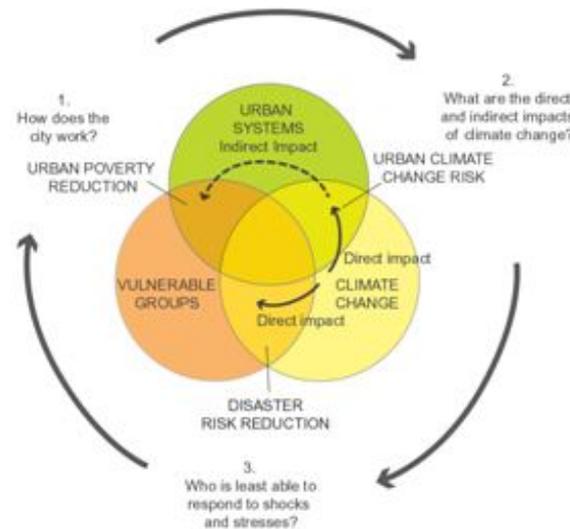


Figure 3: Climate impacts: a compound effect combining direct impacts, indirect impacts, and pre-existing vulnerabilities (Source: da Dilva et al.)



Why Facilitated Dialogues?

Climate science is overwhelming and often characterized as being “uncertain” making it as a concept – vague, abstract and hard to understand

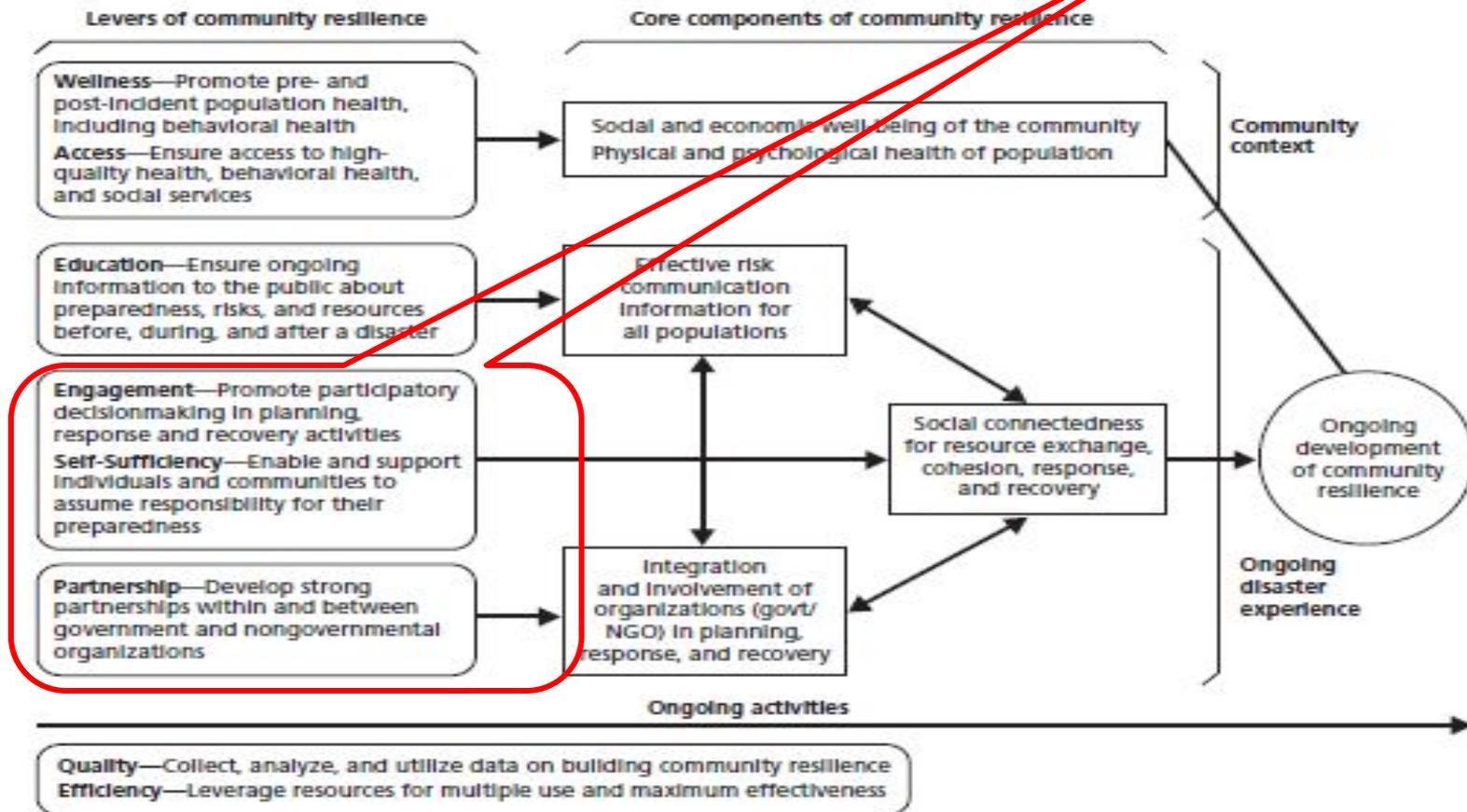
Thus FACILITATED DIALOGUES can be powerful tools for

- a) understanding climate change;
- b) understanding vulnerabilities;
- c) creating effective climate adaptation.



Decreasing Vulnerability through effective Civil-Military Cooperation

Figure S.1
Levers and Core Components of Community Resilience





AFRICOM Horn of Africa Water Security Workshop

24 – 28 August 2015
Addis Ababa Ethiopia

Purpose and Objectives

The purpose of this workshop is to facilitate dialog on water security issues and capacity building in the Horn of Africa. The primary objective of this workshop is to promote interagency cooperation, enhance the institutional framework, and strengthen capacity for water security in the Horn of Africa. The workshop will cover topics such as (1) priorities and initiatives of participating agencies, (2) climate change, water and sustainability strategies, (3) remote sensing for water and environmental management, (4) water resources modeling and data management, (5) water quality, (6) water collection, retention and treatment, and (7) Trans-boundary Issues. Discussions will address both groundwater and surface water.

The workshop will be sponsored by USAFRICOM. Participants will be from civilian and defense sectors of Ethiopia and Kenya. Presenters will include Ethiopian, Kenyan and U.S. subject matter experts. Addis Ababa University, School of Earth Sciences will co-host and provide the venue. The workshop will be 4 1/2 days in length and the total number of participants will be approximately 50. The workshop will consist of lecture, facilitated discussion and exercises. The workshop will be interactive focusing on lessons learned and current best practices. The workshop will foster communication and collaboration among the participants. Topics for future engagements will be identified based on participant interest and identified gaps in knowledge and/or expertise.



AFRICOM Horn of Africa Water Security Workshop
24 – 28 August 2015
Addis Ababa Ethiopia

Monday 24 August

Facilitator: Dr. John Kelly

Time	Topic	Who
08:30	Opening ceremony	TBD (Master of Ceremonies: CDR Jeff Thomas)
09:20	Welcome and workshop overview	Mr. Jeffrey Andrews and Mr. Ken Kaempffe
09:30	AFRICOM Environmental Security Program	Mr. Jeffrey Andrews
10:00	Our past water initiatives in the Horn of Africa and the way forward	Mr. Ken Kaempffe
10:15	BREAK	
10:30	Natural resources, water and conflict prevention	Dr. John Kelly
11:15	Quantifying the benefits of transboundary water cooperation in the Nile Basin	Dr. Marius Claassen, Principal Scientist and Research Group Leader, Natural Resources and the Environment Unit, Council of Scientific & Industrial Research, South Africa
12:00	LUNCH	
13:00	Water initiatives and priorities - Ethiopia	Mr. Tesfaye Tadesse, Water Resources Planning Unit, Ministry of Water Irrigation and Energy, Ethiopia
13:45	Water initiatives and priorities - Kenya	Mr. John Gondi Nyakwaka, Ministry of Environment, Water and Natural Resources, Kenya



Triage Approach

- Phase 1: Baseline Indicators¹
 - (Utilize [ND-Gain Vulnerability Index](#) to develop baseline measurements of vulnerability)
 - [Survey](#) or [this](#)
- Phase 2: [Stakeholder Engagement](#)
 - Conduct facilitated dialogue stakeholder session understand vulnerabilities focusing on Early Warning Systems
- Phase 3: Adaptive Capacity Assessment
 - Integrated Technical Report

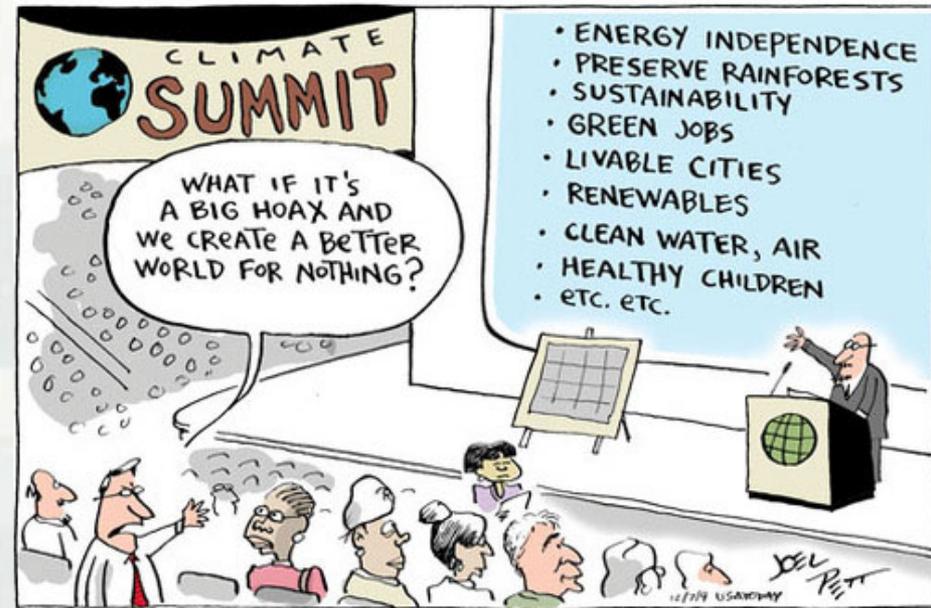


Lessons Learnt

1. Words matter
2. Pre-survey critical to engagement
3. Demand-based facilitated dialogue critical when dealing with “uncomfortable knowledge”
4. Sustaining a civil-military community of interest despite cross-cultural competencies



Climate Security: Conflict? Or Cooperation?



of weather-related disasters has **tripled** in the last 30 years, and the cost is up 300 percent to **\$200 billion** every year

low-income countries were hit by only 9% of these disasters, they represented **48%** of all fatalities.



thank you for your time and attention

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