

THE ROBERT S. STRAUSS CENTER™
FOR INTERNATIONAL SECURITY AND LAW

CCAPS
CLIMATE CHANGE
AND AFRICAN
POLITICAL STABILITY



Army Senior Service
College Fellowship

THE UNIVERSITY OF TEXAS AT AUSTIN
COLLEGE of LIBERAL ARTS

EVOLVING DYNAMICS OF SECURITY IN AFRICA: ASSESSING DIPLOMACY, DEVELOPMENT, AND DEFENSE RESPONSES



REPORT OF PROCEEDINGS

LBJ SCHOOL OF PUBLIC AFFAIRS
UNIVERSITY OF TEXAS AT AUSTIN

AUSTIN, TEXAS

APRIL 24, 2012

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BACKGROUND TO THE CONFERENCE

The Robert S. Strauss Center for International Security and Law, the U.S. Africa Command, the U.S. Army Senior Service College Fellowship Program, and the University of Texas College of Liberal Arts hosted a full-day conference examining the evolving dynamics of security in Africa. The conference brought together policymakers, practitioners, military personnel, and scholars to share research and policy options on issues impacting African and global security.

The conference was held on April 24, 2012 at the LBJ School of Public Affairs at the University of Texas at Austin.

This report has been assembled based on conference presentations of the participants. However, responsibility for the text in the report rests with the CCAPS program, and any errors should not be attributed to participants.

Many thanks to Sarah McDuff and Elena Rodriguez who served as rapporteurs during the event and aided in drafting this report, and to Ashley Moran and Dominique Thuot who served as editors of the report.

Conference presentations and photos are available on the CCAPS website at www.strausscenter.org/ccaps.

Photo credit: Bob Daemmrich Photography

ABOUT THE CO-HOSTS

This conference was cohosted by the Robert S. Strauss Center for International Security and Law, the U.S. Africa Command, the U.S. Army Senior Service College Fellowship Program, and the University of Texas College of Liberal Arts.

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The **Climate Change and African Political Stability Program** is a five-year research program at the Robert S. Strauss Center for International Security and Law at the University of Texas at Austin, conducted in partnership with the College of William and Mary, Trinity College Dublin, and University of North Texas. CCAPS analyzes how climate change, conflict, governance, and aid intersect to impact African and global security. CCAPS is funded by the U.S. Department of Defense's Minerva Initiative.



The **United States Africa Command**, also known as U.S. AFRICOM, is one of nine Unified Combatant Commands of the U.S. Department of Defense (DoD). As one of six that are regionally focused, it is devoted solely to Africa. U.S. AFRICOM is responsible to the Secretary of Defense for U.S. military relations with 54 African countries. U.S. AFRICOM is committed to supporting U.S. government objectives through the delivery and sustainment of effective security cooperation programs that assist African nations build their security capacity to enable them to better provide for their own defense.



The **U.S. Army War College Senior Service College Fellowship Program**, a partnership of the United States Army and the University of Texas at Austin since 1992, is a one-year resident fellowship for Army colonels. Military participants attend UT in lieu of The Senior Service College (Army War College) resident program at Carlisle Barracks, PA and receive the award of Military Education Level One (the highest level of formal military education). Through access to the world-class educational assets of a top tier university, selected officers prepare to meet the demands of strategic thinking and senior level leadership that will be required of them as they lead the Army into the future.



The **College of Liberal Arts** is the largest school at the University of Texas at Austin, offering more than 55 majors through 21 academic departments and two-dozen centers and institutes. The school is committed to the idea that understanding history, society and culture helps students better understand - and, ultimately, thrive in - the world beyond campus.

EVOLVING DYNAMICS OF SECURITY IN AFRICA: ASSESSING DIPLOMACY, DEVELOPMENT, AND DEFENSE RESPONSES

AGENDA

8:30am

INTRODUCTION

- Dr. Francis Gavin, Robert S. Strauss Center for International Security and Law
- COL Michael L. Shenk, U.S. Army Senior Service College Fellowship Program

8:45am

KEYNOTE: THE EVOLVING ROLE OF THE U.S. MILITARY IN AFRICA

- Ambassador J. Anthony Holmes, Deputy to the Commander for Civil-Military Activities, U.S. Africa Command

9:30am

TRADITIONAL SECURITY THREATS IN TRANSITION: NEW PATTERNS AND TRIGGERS OF CONFLICT AND VIOLENCE

How are historical patterns and hot spots for conflict and violent extremism changing in Africa, and how do these trends interact with new security threats like climate change? How are conflict dynamics, drivers, and contagion patterns changing in recent years?

- LTC Liam Collins, Combating Terrorism Center, U.S. Military Academy at West Point (moderator)
- Dr. Clionadh Raleigh, Trinity College Dublin; CCAPS Program
- Dr. Idean Salehyan, University of North Texas; CCAPS Program
- Mr. Brian Levey, Violent Intranational Political Conflict & Terrorism Lab, College of William & Mary

11:00am

EMERGING SECURITY THREATS: TRANSNATIONAL CHALLENGES FROM CLIMATE CHANGE AND HUMANITARIAN CRISES

How are climate change, migration, and other transnational issues impacting African and global security in new ways? Where are pandemics and humanitarian crises affecting security most acutely in Africa?

- Ms. Ashley Moran, Robert S. Strauss Center for International Security and Law (moderator)
- Dr. Joshua Busby, LBJ School of Public Affairs; CCAPS Program
- Mr. Jeffrey Stark, Foundation for Environmental Security and Sustainability
- Dr. Andrew Githeko, Kenya Medical Research Institute

12:30pm

LUNCHTIME ADDRESS: U.S. DIPLOMATIC RESPONSES TO CLIMATE CHANGE IN AFRICA

- Mr. David Gilmour, Director of Public Diplomacy and Public Affairs for Africa, U.S. State Department

1:30pm

CASE STUDIES IN EFFECTIVE APPROACHES: SUPPORTING NATIONAL RESPONSES

What are the substantive and institutional requirements for security in these sectors in Africa? What are the roles and responsibilities of U.S. and African military, government, and nongovernmental actors in addressing these security issues? Where are there new opportunities to support national responses on these security issues through diplomacy, development, and defense channels?

- Dr. Terrence Chapman, University of Texas at Austin (moderator)
- Mr. Michael Casciaro, U.S. Africa Command
- Mr. Andrew Bruzewicz, U.S. Army Corps of Engineers
- Ms. Jennifer Frankel-Reed, U.S. Agency for International Development

3:00pm

CASE STUDIES IN EFFECTIVE APPROACHES: FOSTERING REGIONAL RESPONSES

Where are there new opportunities for regional responses to address security issues through diplomacy, development, and defense channels?

- Dr. Chris Jaspardo, U.S. Naval War College (moderator)
- Mr. Paul Bartel, U.S. State Department
- CDR John Driscoll, U.S. Africa Command
- Dr. Michael Findley, Brigham Young University; CCAPS Program
- Mr. Maxime Nzita Nganga, Greater Virunga Transboundary Collaboration

4:30pm

LESSONS LEARNED AND NEXT STEPS

How can research at civilian and military education institutions inform the changing intelligence, strategic, and operational needs of the U.S. government and military in Africa?

- Dr. Kent Butts, U.S. Army War College; CCAPS Advisory Board

5:00pm

CONFERENCE CLOSING

- Ms. Celeste Ward Gventer, Robert S. Strauss Center for International Security and Law

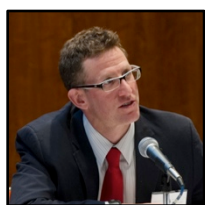
PARTICIPANT BIOGRAPHIES



Mr. Paul Bartel is a Senior Analyst at the Humanitarian Information Unit of the U.S. Department of State. He is a resource economist, specializing in economic and geographic analysis of humanitarian assistance and natural resource management issues. He has over 25 years of experience in Africa and Latin America, working in various locations, from remote parts of Somalia and Morocco to urban centers in Western Africa and the Caribbean. He has an international reputation for establishing innovative approaches to humanitarian and environmental information systems and decision support mechanisms in support of analysis, policy development, and programs. He has advised numerous organizations and agencies on the design and implementation of information and decision-support systems, including USAID, the Department of State, the International Agricultural Research Centers, and international organizations. He conducts analyses of complex humanitarian emergencies in the Horn of Africa and West Africa and facilitates support of a broad network of geospatial expertise in Africa.



Mr. Andrew Bruzewicz is the Program Manager for the U.S. Army Corps of Engineers' International Emergency Management Program, assisting nations and regional entities to improve their disaster preparedness, planning, and response capabilities. Mr. Bruzewicz also served as Program Manager of the Civil Military Emergency Preparedness (CMEP) Program and was the first Program Manager of the Corps' Black Sea Initiative for the Department of Army. He has served as Director of the Corps' Remote Sensing/GIS Center of Expertise, managed the Corps' civil works remote sensing and GIS R & D program, and served as lead of the Corps' Emergency Management GIS Planning and Response Team—a national team of GIS experts that provides GIS and remote sensing services as part of national disaster response in the U.S. Mr. Bruzewicz is interested in how the approach used by the CMEP program can contribute to improving capabilities in managing all phases of large, complex disasters, particularly in an international context; the use of GIS and remote sensing as enabling technologies permitting improved information flow between emergency managers and responders; and ways in which these technologies can be used to facilitate environmentally sound development of large multinational river basins as part of larger development issues.

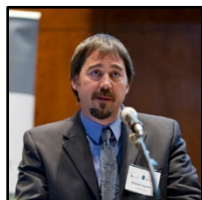


Dr. Joshua Busby is an Assistant Professor at the LBJ School of Public Affairs and the Crook Distinguished Scholar at the Robert S. Strauss Center for International Security and Law. Dr. Busby leads the vulnerability research team in the Strauss Center's program on Climate Change and African Political Stability. Dr. Busby has published widely on climate change and national security, transnational advocacy movements, and U.S. foreign policy. He served as an outside reviewer of the National Intelligence Council's assessment of climate change and security, and he has written reports on climate change and national security for the Council on Foreign Relations, the Brookings Institution, the Center for a New American Security, the Woodrow Wilson International Center, and the UN's High-Level Panel on Threats, Challenges, and Change. Dr. Busby was a Research Fellow at the Center for Globalization and Governance at Princeton's Woodrow Wilson School, the Belfer Center for Science and International Affairs at Harvard's Kennedy School of Government, and the Foreign Policy Studies program at the Brookings Institution. He received his PhD in Government from Georgetown University.



Dr. Kent Hughes Butts is Professor of Political Military Strategy and the Director of the National Security Issues Group at the Center for Strategic Leadership at the U.S. Army War College. His group leads the Center's Combatant Command support efforts. He is a retired Army officer and was U.S. Defense and Army Attaché and Security Assistance Officer in Uganda, Tanzania, and Malawi. Dr. Butts has organized and conducted international conferences, workshops, or games on environmental security in the Middle East, Europe, Asia, and Latin America. He has been interviewed by the BBC, *Time Magazine*, *Washington Post*, *Baltimore Sun*, and other media and

twice testified before Congress on the topic of climate change and security. He is co-author of the book, *Geopolitics of Southern Africa: South Africa as Regional Superpower*, and co-editor of the books, *Economics and National Security: the Case of China* and *Sustainability and National Security*.



Mr. Michael Casciaro has been with U.S. Africa Command since its inception, starting as a Theater Security Cooperation Planner for the Initial Planning Team for AFRICOM, then working as the principal TSC authority, SPP (J5) planner, and Africa expert for the Transition Team. He currently serves as Division Chief of Security Cooperation Programs, where he provides oversight, policy guidance, funding recommendations, and program implementation for security cooperation funding for the Command. He serves as the primary conduit between the Command, the Office of the Secretary of Defense, and the Department of State for security cooperation program funding and prioritization. He is also the lead for Security Cooperation education for the Command, primary working group leader for COCOM policy on the Senior Defense Official, Defense Attaché (SDO/DATT) program, and Office of Security Cooperation expansion on the continent. He is a former Army Foreign Area Officer with experience in the Middle East and Africa. His education includes an MA in National Security Affairs from the Naval Postgraduate School, the Security Cooperation Management course, Command and General Staff College, and Arabic language. His military service included overseas tours in Operations Desert Storm and Iraqi Freedom, Multi-National Force and Observers Peace-Keeping mission in Egypt, Germany, various Middle Eastern countries, and several joint assignments.



Dr. Terrence Chapman is an Assistant Professor of Government at the University of Texas at Austin, where he studies international organizations, conflict, and cooperation. In 2009-2010, he held a position as a visiting associate research scholar at the Niehaus Center for Globalization and Governance at Princeton University. His work on international security organizations, the UN Security Council, political violence, and the International Criminal Court has appeared or is forthcoming in journals such as *International Organization*, *Journal of Politics*, *Journal of Conflict Resolution*, and *International Studies Quarterly*. His book, *Securing Approval: Domestic Politics and Multilateral Authorization for War*, was published by the University of Chicago Press in 2011. He received his PhD from Emory University. Dr. Chapman's current research examines the fiscal origins of military spending and international diplomacy, building on theories of bargaining and war. His other research examines market reactions to IMF program announcements, or the so-called "catalytic" lending effect.



Lieutenant Colonel Liam Collins is the Director of the Combating Terrorism Center (CTC) and an Assistant Professor at the U.S. Military Academy. LTC Collins joined the CTC in 2009, advising on matters of operational counterterrorism strategy, homeland security, and organizational responses to crisis. He teaches courses in Terrorism and Counterterrorism, Homeland Security and Defense, International Relations, and American Politics. LTC Collins is a career Special Forces officer, serving in a variety of special operations assignments. He has conducted multiple combat operations to both Afghanistan and Iraq as well as operational deployments to Bosnia, Africa, and South America. He has graduated numerous military courses including ranger school, and he has earned numerous military awards and decorations including two valorous awards for his actions in combat. He holds a Bachelor of Science in Aerospace Engineering from the U.S. Military Academy and a Master in Public Affairs from Princeton University's Woodrow Wilson School, and he is presently completing his doctoral dissertation at Princeton University on organizational innovation of the U.S. Military during war.



Commander John J. Driscoll is currently serving as Deputy Chief of Air and Maritime Programs (J5) at Headquarters U.S. Africa Command. He is the primary program manager for Africa Partnership Station, the African Maritime Law Enforcement Partnership, and leads the regional maritime security initiative with the Economic Community of Central African States and the Economic Community of West African States. He served as the Coast Guard liaison to,

and an operational planner on, Joint Task Force ODYSSEY DAWN during the 2011 combat operations to protect civilians in Libya. At sea, Commander Driscoll has served as Officer in Charge of a Law Enforcement Detachment aboard allied and U.S. Navy ships enforcing drug laws and sanctions against Bosnia; as Supply and then Operations Officer in USCGC MIDGETT which was deployed as part of the USS CONSTELLATION Carrier Battle Group enforcing sanctions against Iraq; and as Commanding Officer in USCGC NANTUCKET and USCGC MATAGORDA. His most recent assignment afloat was as Executive Officer in USCGC MOHAWK, which responded to the disaster caused by the earthquake in Port au Prince, Haiti, and was deployed to Africa as part of the African Maritime Law Enforcement Partnership. Commander Driscoll has served ashore at the National Response Center, the Rescue Coordination Center, and the Plans Division (J5) Headquarters North American Aerospace Defense Command/U.S. Northern Command. He holds a BA in History from the Virginia Military Institute and an MA in National Security and Strategic Studies from the U.S. Naval War College.



Dr. Michael Findley is an Assistant Professor of Political Science at Brigham Young University and Associate Director of BYU's Political Economy and Development Lab. Dr. Findley is the recipient of various fellowships and awards including a Peace Scholar Fellowship at the U.S. Institute of Peace. He has been a guest researcher at Uppsala University's Peace and Conflict Department and has worked together with institutions such as the World Bank, African Development Bank, and Malawian Government to map development activities. His research examines civil wars, terrorism, foreign aid, and development. He has published articles in the *American Journal of Political Science*, *Journal of Politics*, *International Studies Quarterly*, and *British Journal of Political Science*, among other journals.



Ms. Jenny Frankel-Reed is a climate change specialist with USAID's Climate Change Office in the Bureau for Economic Growth, Education, and Environment. She has worked on the vulnerability and adaptation dimensions of climate change since 2002, including field-based project design, vulnerability assessment, adaptation financing, monitoring and evaluation, and training. Previously, she was Technical Advisor for an adaptation program focused on rural areas of India with the German International Cooperation (GIZ) based in New Delhi. She also worked as an Adaptation Advisor with the Environment and Energy Group of the United Nations Development Program, where she created guidance for incorporating climate change considerations into Special Climate Change Fund and Least Developed Countries Fund projects, developed a monitoring and evaluation framework for climate change adaptation, and designed the Adaptation Learning Mechanism platform for knowledge sharing. She has also served as a Climate Change Consultant to the Global Environment Facility where she analyzed bilateral development agencies' climate change adaptation policies and projects. Ms. Frankel-Reed holds a BS in Environmental Science from Willamette University and a MEM in Global Change Science and Policy from the Yale School of Forestry and Environmental Studies.



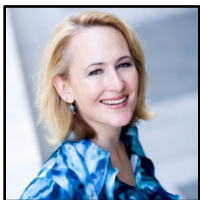
Dr. Francis J. Gavin is the Director of the Robert S. Strauss Center for International Security and Law and the first Tom Slick Professor of International Affairs at the LBJ School of Public Affairs at the University of Texas at Austin. He is the principal investigator on the Strauss Center's Climate Change and African Political Stability program. He was also the director of "The Next Generation Project - U.S. Global Policy and the Future of International Institutions," a multi-year national initiative sponsored by The American Assembly at Columbia University. Previously, he was an Olin National Security Fellow at Harvard University's Center for International Affairs, an International Security Fellow at Harvard's Kennedy School of Government, and a Research Fellow at the Miller Center for Public Affairs at the University of Virginia, where he started "The Presidency and Economic Policy Program." Gavin received a PhD and MA in Diplomatic History from the University of Pennsylvania, a Master of Studies in Modern European History from Oxford, and a BA in Political Science (with honors) from the University of Chicago.



Mr. David Gilmour is the Director of Public Diplomacy and Public Affairs at the Bureau of African Affairs for the U.S. Department of State. Mr. Gilmour previously served as Deputy Chief of Mission at the U.S. Embassy in Panama, where he managed the operations of 22 U.S. federal agencies and over 500 employees, and coordinated the work of a large interagency law enforcement team focused on the security of the Panama Canal, illicit trafficking, money laundering, and counter-terrorism. Mr. Gilmour was Deputy Chief of Mission and Chargé d'affaires of the U.S. Embassy in Malawi, where he oversaw U.S. assistance programs that totaled nearly \$100 million annually, including Millennium Challenge, President's Emergency Plan for AIDS Relief, Peace Corps, emergency food aid, and peacekeeping programs. His other overseas assignments include Director of Public Affairs at the U.S. Mission in Geneva, Switzerland; Public Affairs Officer at the U.S. Consulate General in Sydney, Australia; Press spokesman at the U.S. Embassy in San Jose, Costa Rica; Educational Exchanges Officer at the U.S. Embassy in Pretoria, South Africa; Public Affairs Officer in Douala, Cameroon; and junior officer in Dakar, Senegal. Mr. Gilmour is a recipient of the State Department's Superior Honor Award and Meritorious Honor Award. Mr. Gilmour holds an MA from the University of Texas at Austin.



Dr. Andrew Githeko is a Chief Research Officer at the Kenya Medical Research Institute (KEMRI). He studies the effects of climate change on malaria transmission in the western Kenya Highlands and has developed the only operational and validated climate-based early malaria epidemic prediction models for the East African Highlands. In 1998, he joined the United Nations Intergovernmental Panel on Climate Change (IPCC) and was a Coordinating Lead Author, author, and contributing author of three IPCC reports. Dr. Githeko was also involved in the UN Millennium Ecosystem Assessment Report published in 2005. Dr. Githeko heads the Climate and Human Health Research Unit at KEMRI's Centre for Global Health, and his group has published about 90 peer-reviewed papers on malaria. He has contributed 17 book chapters and has been an author of UNEP's Global Environmental Outlook and African Environmental Outlook reports. He was a visiting scholar at the National Centre for Atmospheric Research and the National Institute for Biological and Mathematical Synthesis in 2011. Dr. Githeko completed studies in chemistry and zoology at the University of Nairobi, and an MSc in Applied Parasitology and Medical Entomology and a PhD in Medical Entomology at the Liverpool School of Tropical Medicine.



Celeste Ward Gventer is Associate Director at the Robert S. Strauss Center for International Security and Law. Previously, she was Senior Defense Analyst at the RAND Corporation. Prior to joining RAND, she was the Deputy Assistant Secretary of Defense for Stability Operations Capabilities in the Office of the Secretary of Defense. There she was responsible for providing policy advice on the capabilities needed in the U.S. General Purpose Force to conduct effective stabilization and reconstruction and counterinsurgency operations. She joined DoD from her second tour in Iraq, where she served for all of 2006 as the political-military advisor to the MNC-I commander, GEN Peter W. Chiarelli. She also served in Iraq from November 2003 – June 2004 with the Coalition Provisional Authority, where she assisted in the creation and stand-up of the Iraqi Ministry of Defense and was an assistant to the Iraqi National Security Advisor. Ms. Gventer has also worked as a Special Assistant to the Counselor of the State Department (Dr. Philip Zelikow), as a Strategist in the Office of the Secretary of Defense, as a Research Fellow at the Center for Strategic and International Studies, and as a Defense Analyst at the U.S. Congressional Budget Office. Celeste has a BA in Political Science from Stanford University and a Master of Public Policy from the Kennedy School of Government at Harvard University.



Ambassador J. Anthony Holmes, a senior U.S. diplomat, is Deputy to the Commander for Civil-Military Activities of the U.S. Africa Command. Ambassador Holmes directs the command's plans and programs associated with health, humanitarian assistance and de-mining action, disaster response, security sector reform, and Peace Support Operations. He also directs Outreach, Strategic Communication, and AFRICOM's partner-building functions, and assures that policy development and implementation are consistent with U.S. Foreign Policy. Prior to

his current appointment, Ambassador Holmes was the Cyrus Vance Fellow in Diplomatic Studies at the Council on Foreign Relations. Ambassador Holmes served as the U.S. Ambassador to the Republic of Burkina Faso from 2002 to 2005, and as director of the Africa Bureau's Economic Policy Office from 1999 to 2002. He has held various Foreign Service positions in Zimbabwe, Kenya, and Egypt. Ambassador Holmes has a BA in Comparative Religion and an MA in Economic Geography from the University of Georgia, as well as an MBA from the Thunderbird School of International Management.



Dr. Chris Jaspardo is an Associate Professor of National Security Affairs and the Africa Area Study Coordinator at the U.S. Naval War College. He specializes in transnational and irregular security threats as well as environmental security issues, particularly climate change. He also has interests in homeland security, development, and theater security cooperation. Dr. Jaspardo is an Asia-Pacific regional specialist with additional interests in African non-state security issues and regional geography. Prior to joining the Naval War College, he served at the U.S. Marine Corps Command and Staff College, the DoD Asia-Pacific Center for Security Studies, and the Department of Geography at Framingham State College. He is a former U.S. Naval Reserve Officer and an experienced field archaeologist. Dr. Jaspardo also has experience in cartography, transportation, and town planning. He holds a PhD in geography from the University of Kentucky, and MA in geography from the University of North Carolina, a BA in anthropology and geography from the University of Vermont, and a Graduate Certificate in Transportation Systems Management.



Mr. Brian Levey works as a Senior Research Scientist at Strategic Analysis Enterprises where his responsibilities include statistical model generation, model transparency, research design, and the testing and evaluation of models. Mr. Levey also has an appointment at the Violent Intranational Political Conflict and Terrorism Lab at the College of William and Mary. His areas of interest include research design, causal models, counterfactual analysis, and applied Bayesian modeling.



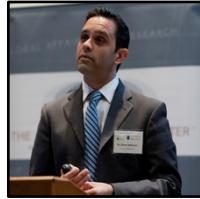
Ms. Ashley McIlvain Moran is an Associate at the Robert S. Strauss Center for International Security and Law, where she manages the program on Climate Change and African Political Stability and leads the democratic governance research team under the program. Her work focuses on democratic legal and institutional reform, comparative law, and rule of law. She previously served as parliamentary advisor in the Republic of Georgia for the National Democratic Institute for International Affairs (NDI), ran democratic reform programs and trainings in Azerbaijan and Iraq for NDI, and designed rule of law programs in Kyrgyzstan for the Organization for Security and Co-operation in Europe. Her previous policy work includes various political and legislative posts in the U.S. She holds an MA in international law and development economics from the Fletcher School of Law and Diplomacy.



Mr. Maxime Nzita Nganga, Congolese from the Democratic Republic of Congo, is the Deputy Executive Secretary of the Greater Virunga Transboundary Collaboration, which is based in Kigali, Rwanda. This initiative comprises the Democratic Republic of the Congo, Rwanda and Uganda. In this role, he manages the transboundary natural resources initiative between these three post conflict countries. Mr. Nganga is an Agro Economist Engineer and has extensive general management experience, spanning over eight years and four countries in Central and Eastern Africa, where he has worked for international non-governmental organizations and interstate agencies.



Dr. Clionadh Raleigh is an Assistant Professor at Trinity College Dublin and an external researcher at the Peace Research Institute, Oslo. She is a core researcher in the Strauss Center’s program on Climate Change and African Political Stability. She is a political geographer, and her work is focused mainly on conflict, governance, and the social consequences of climate change in sub-Saharan Africa. Dr. Raleigh directs the Armed Conflict Location and Event Data (ACLED) project, which tracks local conflict events in over fifty countries. Her current work concerns conflict patterns, government intervention, and drought patterns in the Sahel belt, and appears in journals such as *Political Geography*, *Journal of Peace Research*, and *International Studies Review*. Dr. Raleigh earned her PhD in Geography from the University of Colorado at Boulder.



Dr. Idean Salehyan is an Associate Professor of Political Science at the University of North Texas. He is also an Associate at the John Goodwin Tower Center for Political Studies at Southern Methodist University, at the Peace Research Institute Oslo, and at the Robert S. Strauss Center for International Security and Law. Dr. Salehyan is a core researcher in the Strauss Center’s program on Climate Change and African Political Stability and co-director of the Social Conflict in Africa Database (SCAD). Dr. Salehyan is the author of *Rebels Without Borders: Transnational Insurgencies in World Politics*, and his articles appear in journals such as the *American Journal of Political Science*, *Journal of Politics*, *Journal of Peace Research*, *International Organization*, *International Studies Quarterly*, and *World Politics*. Dr. Salehyan has also published several articles, reports, and op-eds on the relationship between environmental degradation and armed conflict. Dr. Salehyan holds a PhD in Political Science from the University of California, San Diego.



Colonel Michael L. Shenk has served in the U.S. Army for 24 years. His civilian education includes BA and MS degrees in applied mathematics. He earned a Regular Army commission as a Distinguished Military Graduate from the Reserve Officers Training Corps, was the Distinguished Honor Graduate of the Initial Entry Rotary Wing Course and the Aviation Officer Advanced Course, and was designated a Master Tactician by the Command and General Staff Officer Course. COL Shenk’s combat tours of duty include Operations Desert Shield and Storm, Operation Enduring Freedom, Operation Iraqi Freedom, and Operation New Dawn. COL Shenk served as an Associate Professor at the U.S. Military Academy and as a Professor of Military Science at Auburn University. He served as the Inspector General for III Corps and Fort Hood, Texas, and as the Joint Inspector General for U.S. Forces – Baghdad, Iraq. COL Shenk is currently assigned to the U.S. Army War College with duty at the University of Texas at Austin. He serves as a Senior Service College Fellow conducting strategic research on transformational followership and the reduction of toxic leadership in the U.S. Army.



Mr. Jeffrey Stark is the Director of Research and Studies at the Foundation for Environmental Security and Sustainability, where he has led environmental security assessments in Uganda, the Dominican Republic, the Philippines, and Ethiopia, as well as project activities in Sierra Leone. He recently wrote a series of reports on climate change and conflict for USAID, including “Climate Change, Adaptation, and Conflict,” “Climate Change and Conflict in Uganda: The Cattle Corridor and Karamoja,” and “Climate Change and Conflict in Pastoralist Regions of Ethiopia: Mounting Challenges, Emerging Responses.” During 2010-2012, he conducted a series of training workshops on environmental security for government officials from six East African countries for the United Nations Economic Commission for Africa, and in March 2012 he led an environmental security training workshop for the Rwanda Defence Forces. He currently serves as a Visiting Professor at the UN University for Peace in Costa Rica. He is co-editor of *Fault Lines of Democracy in Post-Transition Latin America* and editor of *The Challenge of Change in Latin America and the Caribbean*.

EVOLVING DYNAMICS OF SECURITY IN AFRICA: ASSESSING DIPLOMACY, DEVELOPMENT, AND DEFENSE RESPONSES

REPORT OF PROCEEDINGS

INTRODUCTION

Dr. Francis Gavin, Director of the Robert S. Strauss Center for International Security and Law and principal investigator of the CCAPS program, introduced the conference and highlighted the need for researchers and practitioners to examine how traditional security threats are changing and effective approaches for response. Dr. Gavin spoke of the conference's aim to bring together policymakers, practitioners, military personnel, and scholars to explore new research on the drivers of conflict and emerging security threats in Africa. He stressed the value of the conference in creating a venue for participants to discuss diplomacy, development, and defense responses at both the national and regional level. Dr. Gavin expressed gratitude to the cosponsors of the event, including the U.S. Africa Command, the U.S. Army Senior Service College Fellowship Program, and the University of Texas College of Liberal Arts.

Colonel Michael L. Shenk, Senior Service College Fellow at the U.S. Army War College, introduced the keynote speaker, Ambassador J. Anthony Holmes. Colonel Shenk highlighted Amb. Holmes' 15 years of experience focused on issues under study at the conference, such as disaster response, health, and humanitarian crises in Africa. Amb. Holmes was a fellow at the Council on Foreign Relations and served as Ambassador to the Republic of Burkina Faso from 2002 to 2005. He is currently the Deputy to the Commander for Civil-Military Activities of the U.S. Africa Command. In this role, he directs AFRICOM's partner-building functions and ensures that policy development and implementation are in line with U.S. foreign policy. Amb. Holmes made remarks on the evolving role of the U.S. military in Africa.

SESSION I: TRADITIONAL SECURITY THREATS IN TRANSITION: NEW PATTERNS AND TRIGGERS OF CONFLICT AND VIOLENCE

Militias and the Geographies of Violence in Africa

Dr. Clionadh Raleigh, Assistant Professor at Trinity College Dublin, discussed the importance of political militias as an emerging agent of political violence. In the last 15 years, a profound shift has occurred in the main agents of violence in Africa. During this period, a decline in rebel action and civil war activity has been accompanied by a substantial increase in political militia activity. The growth in political militia activity has resulted in part from an increase in election violence, such as in Zimbabwe and Kenya, where the governments have hired militias to threaten voters. Political militias can operate under the direction of presidents, national and regional elites, rebel leaders, village leaders, and communities. Their activity is directly linked to political agents, especially in democratizing states, and these agents range from electoral thugs to groups that perform public security functions. According to Dr. Raleigh, "Political militias are an important part of how current African states are run and ruled." This is especially true in states undergoing democratic transition.

"Political militias are an important part of how current African states are run and ruled."

~ Clionadh Raleigh

Dr. Raleigh developed a typology to evaluate the emergence of political militias by looking at governance. Political militias are defined as armed groups using violence or the threat of violence to influence an immediate political process. Their goals are focused on the protection and promotion of certain parts of the state and they generally operate outside the formal control of the government. Dr. Raleigh used data from the Armed Conflict Location and Events Dataset (ACLED) to examine the following three questions: How can militias be differentiated? What role does the state play? What can explain the rise and dominance in political violence in recent years?

There are three categories of political militias: ethnic or local security providers, competition militias, and emergency militias. The type of militia that emerges is directly tied to governance, including the group's relationship with the government and government capacity. For example, high interaction with the government but poor government capacity results in emergency militias. Democracies have a much higher proportion of militia events than any other conflict, especially during election periods. In addition, political militia activity is the primary mode of conflict in newly democratizing states. Political militia activity will represent the main type of conflict in Africa in the future and it thus deserves further analysis and attention.

Climate Change, Drought, and Conflict in Africa

Dr. Idean Salehyan, Associate Professor of Political Science at the University of North Texas, discussed his research conducted with Dr. Cullen Hendrix as part of the CCAPS program on the relationship between climate change and conflict. Is climate change a driver of conflict and should it be considered an emerging security threat? Current research suggests that climate change is expected to make droughts more frequent and severe and to increase the scarcity of resources such as food and water. Africa is particularly vulnerable to these effects because the majority of the population engages in resource-intensive livelihoods. Conventional wisdom suggests that because drought leads to scarcity and resource competition, it is likely to result in conflict. However, research traditionally has not examined what type of climate change induced conflict could be expected. Dr. Salehyan's research examines the relationship between drought and conflict, distinguishing between armed conflict and social conflict. Armed conflict is large and violent and requires some degree of organization. Social conflict, on the other hand, is limited in scope and duration, and requires less organization.

Dr. Salehyan analyzed positive and negative deviations in long-term rainfall patterns and social conflict events as recorded by the Social Conflict in Africa Database (SCAD) and found that both extremes – drought and flood – drive social conflict. For armed conflict, he analyzed the relationship between the Palmer Drought Severity Index and four dependent conflict variables, and found that there is less conflict during drought and more conflict as rainfall increases. When there is extreme scarcity, it is more difficult to get resources to sustain operations; this leads to a reduction in armed conflict. According to Dr. Salehyan, "Armies cannot march where they cannot feed themselves." Abundance, on the other hand, provides ample resources to support armed conflicts. Dr. Salehyan concludes that armed conflict and social conflict should be thought of as distinct processes with different drivers, and suggests that "climate [change] could have more complex relationships with security and the security environment," which he identified as an area for future research.

Forecasting Political Violence in Africa

Mr. Brian Levey, Senior Research Scientist at Strategic Analysis Enterprises, presented the preliminary results of a study which develops multiple models to forecast political conflict in Africa. The research was conducted as part of the World Integrated Crisis Early Warning System (WICEWS) program funded by the Office of Naval Research. The goal of the research is to develop a system to forecast conflict. Mr. Levey develops models based on the theory that political conflict is the result of strategic interdependent decisions and actions of groups and government actors, and uses a multi-method approach to increase the accuracy of the forecasting. The independent variables include both structural variables and event data. The structural variables include: human rights abuses, regime type, economic indicators, and measures of populations. The event data capture interactions between actors within each country and were automatically generated from online news sources by JABARI, a natural language processor developed for use on the WICEWS project. This data identifies violence toward the government by dissident and insurgent groups and government violence toward dissident and insurgent groups as well as key interactions within various populations (political parties, student groups, ethnic and religious minorities, etc.). The dependent variables include the five events of interest (EOI) currently focused on by the WICEWS project: insurgency, rebellion, domestic political crisis, ethnic and religious violence, and international crisis.

To predict conflict events, Mr. Levey tests the Logistic Regression Model, Linear Mixed Effects Model, Classification and Regression Trees (CART) Model, and Grouped Polity Model. Because the best methods for forecasting rely on

multi-model approaches, he then combines all these models into the Ensemble Bayesian Model to produce a single model that is more accurate than each individual model at predicting political conflict. The Ensemble Bayesian Model performs better than the other models by categorizing correctly 97.13 percent of in sample events and 96.37 percent of out-of-sample events. In order to address the challenge of trusting the models, a transparency viewer was developed. According to Mr. Levey, “It allows the models to be compared and gives the end user the ability to change underlying data to determine how the changes affect outcomes.” Overall, this system for forecasting political events is unique as it uses real-time event data provided by the JABARAI, Ensemble Bayesian Model Averaging to produce a single forecast from multiple models, and addresses the concern of model transparency through the development of a transparency viewer.

SESSION II: EMERGING SECURITY THREATS: TRANSNATIONAL CHALLENGES FROM CLIMATE CHANGE AND HUMANITARIAN CRISES

Climate Security Vulnerability in Africa

Dr. Josh Busby, Assistant Professor at the LBJ School of Public Affairs, discussed the climate security vulnerability mapping of the Climate Change and African Political Stability (CCAPS) program. The goal of his vulnerability research is to develop subnational maps that identify areas of climate security vulnerability and explain what is driving this vulnerability. In order to achieve this, the maps include physical exposure, demographic, socioeconomic, and political indicators. These maps differ from seasonal maps of emergent vulnerability since the CCAPS maps identify chronic vulnerability, which has potential security consequences. These security consequences could include conflict, but the project is focused on identifying situations that could cause mass death from climate-related hazards.

“Our composite maps suggest that the places that are likely to be vulnerable in East Africa include southern and northern Somalia and the eastern edge of the Democratic Republic of the Congo.”

~ Joshua Busby

Physical exposure, population density, community and household resilience, and governance and political violence each account for one quarter of the composite measure of vulnerability. Each variable is weighted equally and then the variables are aggregated to produce the map of composite vulnerability. Physical exposure includes climate-related variables such as droughts and floods, while population density is a single indicator identifying the areas with the largest populations. These areas pose the greatest potential for impact on human populations. The community/household resilience indicators assess the ability of communities to protect themselves in the face of a changing climate. Finally, the governance and political violence indicators examine the

responsiveness and effectiveness of governments to respond to climate-related risks, including the level at which the government is integrated into the international community. The resulting maps provide a picture of chronic climate security vulnerability across the continent.

A closer look at East Africa reveals the importance of this mapping in the context of disaster relief. More than 70 percent of U.S. humanitarian funding has been directed toward East Africa in recent years. The composite vulnerability map of this region reveals hotspots of concern. According to Dr. Busby, “Our composite maps suggest that the places that are likely to be vulnerable in East Africa include southern and northern Somalia and the eastern edge of the Democratic Republic of the Congo.” The maps can help to identify whether foreign aid is directed to where it is needed the most. When geocoded aid projects are overlaid on vulnerability maps, the maps reveal that the less vulnerable countries actually receive the majority of development projects. Dr. Busby and his team have conducted multiple validity tests to ensure that the mapping reflects reality, including “ground truthing” the validity of the vulnerability assessments through field research in select African countries. Next steps in the climate vulnerability mapping project include incorporating additional and updated subnational variables, as well as alternative measures of physical hazards.

Climate Change and Conflict in Africa: Lessons from Uganda and Ethiopia

Mr. Jeffrey Stark, Director of Research and Studies at the Foundation for Environmental Security and Sustainability, presented the findings of two case studies on the relationship between climate change and conflict in pastoralist areas of Uganda and Ethiopia. This research was conducted for USAID to better understand actual or potential climate change-conflict impacts and to inform USAID's activities related to climate change. The cases were selected because both countries were experiencing some level of conflict and had been reported to be experiencing climate change.

In the case of Uganda, increasing inter-clan conflict among pastoralists in Karamoja has produced tension between the government and pastoralists, and government attempts to suppress the conflict has resulted in forced disarmament programs. The government is pressuring pastoralists to transition to agriculture as they do not see pastoralism as the economic future of Uganda. In addition, climate change is severely affecting Karamoja, evidenced by increased drought frequency, which has resulted in food insecurity, insufficient time to recover from recurrent livestock losses, and a collapse of household assets. Pastoralists in southern Ethiopia are also under pressure to transition from pastoralism to agriculture. Mistrust of the state has increased as the new boundaries established by the government's division of the country into ethnically based regions are being used to gain exclusionary rights to resources. Further, erratic rains, unpredictable planting seasons, invasive species, and lands given to investors have combined to create a difficult situation for pastoralists and have caused them to question the viability of their livelihoods.

"Climate change's contribution to conflict shouldn't be overstated but it also should not be overlooked."

~ Jeffrey Stark

In both of these cases, climate change is not necessarily the determinant of conflict, but it is making the existing pressures and challenges more acute. While neither of the studies suggests that climate change is necessary or sufficient to produce conflict, according to Mr. Stark, "Climate change is reconfiguring livelihoods and having an impact on politics." Political, social, and economic pressures combined with climate change are producing potentially volatile situations in Uganda and Ethiopia. He suggests that, "Climate change's contribution to conflict shouldn't be overstated but it also should not be overlooked." Participatory involvement by local communities is essential for developing solutions to these challenges. USAID has begun this with peace committees in Ethiopia that are intended to address issues related to natural resource management and develop responses to climate change.

Managing a Climate Risk: The Early Climate-Based Malaria Epidemic Prediction Models for East African Highlands

Dr. Andrew Githeko, Chief Research Officer at the Kenya Medical Research Institute (KEMRI), discussed the malaria epidemic prediction model developed by KEMRI. In the 1990s, there were very high rates of malaria epidemics in the highlands of Eastern Africa. Since the epidemics were unpredictable in time and space, health centers were often inadequately prepared to respond to the outbreaks. In addition, malaria causes lower productivity and increases poverty which generally leads to a higher level of conflict. Malaria outbreaks were monitored by hospitals which counted the number of cases and declared an epidemic when the number of cases reached a certain level. In order to better control and predict malaria epidemics, researchers at KEMRI developed an early warning system. As Dr. Githeko stated, "The goal was to move from epidemic detection to epidemic protection."

"The goal was to move from epidemic detection to epidemic protection."

~ Andrew Githeko

Researchers at KEMRI examined temperature and rainfall patterns and determined that certain temperatures and amounts of rainfall tend to occur prior to malaria epidemics. The new models replaced clinical data with climate data, including both rainfall and temperature, to predict malaria epidemics. The models include the additive model, multiplicative model, and 18+C model. Researchers input data into the models that detect anomalies in mean monthly temperatures and rainfall, and then use this information to

predict epidemics. Using historical data, the models tested in various regions in Kenya were able to correctly predict most of the epidemics. Research by KEMRI has also found that well-drained v-shaped ecosystems are especially vulnerable to malaria epidemics and these areas require special interventions and monitoring to prevent epidemics. The prediction models are designed to be accessible to health professionals who will need to use them in the field. Because climate variability can substantially increase the number of malaria cases, these models will be vital in a changing climate.

LUNCHTIME ADDRESS: U.S. DIPLOMATIC RESPONSES TO CLIMATE CHANGE IN AFRICA

“We know that climate change can exacerbate existing problems. It is weak or failed governments that are the critical factor that allow grievances to develop, mobilizations to occur and violence to erupt. Almost certainly, states that are well governed, stable and prosperous are more resilient in the face of climate variability and change risks and are better able to withstand crises and avoid falling into conflict.”

~ David Gilmour

Mr. David Gilmour, Director of Public Diplomacy and Public Affairs at the Bureau of African Affairs for the U.S. Department of State, made remarks on essential elements, or “five pillars,” of U.S. policy toward Africa and how these intersect with climate change and conflict. The first pillar, supporting democracy, is essential to all other development goals. Free and fair elections are the first step, but African governments must develop strong democratic institutions that are responsive to their citizens. They must also promote the rule of law, an independent judiciary, free press, and a vibrant civil society. Mr. Gilmour pointed out recent successes in this area that included condemnation by the Economic Community of West African States (ECOWAS) of the military actions in Mali and the peaceful, constitutional transfer of power in Malawi after the death of President Mutharika.

The second pillar, promoting economic growth, has experienced many recent successes. With some of the fastest growth rates in the world, African states have the opportunity to lift their citizens out of poverty. The American government can support economic growth by promoting development aid and private investment. Not only are there many opportunities for American companies to invest in Africa and compete with China, India, and Brazil; there are also opportunities for American development programs in Africa to promote sustainable development. Mr. Gilmour mentioned one project, Enhancing Capacity for Low Emissions Development (EC-LEDS), which promotes low emissions economic growth.

The third pillar, preventing, mitigating, and resolving conflict, aims to build stability in Africa. The U.S. supports this capacity through peacekeeping efforts and special envoys. The fourth pillar calls for supporting presidential initiatives such as the Global Health Initiative and Feed the Future. Lastly, the fifth pillar acknowledges that the U.S. can play an influential role in helping states with transnational issues such as drug smuggling and climate change. Mr. Gilmour concluded by saying that the U. S. is committed to promoting climate-friendly development in Africa through programs such as the President’s Global Climate Change Initiative and the Adaptation Partnership. The ultimate goal of U.S. policy is to work with its partners to achieve strong, prosperous, and stable democracies in Africa that are able to respond to crises such as climate change.

SESSION III: CASE STUDIES IN EFFECTIVE APPROACHES: SUPPORTING NATIONAL RESPONSES

Theater Security Cooperation Programs

Mr. Michael Casciaro, Division Chief of Security Cooperation Programs for U.S. Africa Command, discussed AFRICOM’s mission and objectives as well as the difficulties within the U.S. government to developing security in Africa. The Command’s core mission is to “strengthen the defense capabilities of African states and regional

organizations.” One of its main objectives is to counter terrorism by combatting ideas and securing borders and coastlines. For example, AFRICOM helps countries develop capabilities to monitor ungoverned terrain where terrorists might build their capacities. The second main objective is to improve the U.S.’ ability to operate in Africa and send Africans to American military schools. Finally, the third objective is to promote stability through strengthening peacekeeping capacity.

AFRICOM serves as a platform for synchronization of American efforts in Africa. It works closely with USAID and the U.S. Department of State on several projects, yet cooperation is not seamless. Because of the way that money is distributed within the U.S. government, the Security Cooperation Programs within AFRICOM must manage the difficulties of fluctuating budgets, as well as the difficulties arising from requesting funds from different sources, which each have their own restrictions and deadlines. Mr. Casciaro provided the example of deploying a Senegalese NCO to serve United Nations’ missions to the DRC, Cote d’Ivoire, Liberia, and Darfur. Each component of the NCO’s training and supplies had to be paid for by different funds. The NCO’s weapon and ammunition were paid for by one fund, while his uniform and tent were paid for by another fund. Likewise, counter-terrorism training and HIV training were paid for by a third and fourth fund. Most recently, AFRICOM has asked Congress for special approval to use Title 10 funding, which is restricted to spending on American military, to train other militaries. The long-term objective, according to Mr. Casciaro, is to coordinate efforts to train African soldiers.

USACE Civil Military Emergency Preparedness Program: A Tool for Improved Consequence Management and Example of Smart Power

Mr. Andrew Bruzewicz, Program Manager for the U.S. Army Corps of Engineers’ International Emergency Management Program, described the Civil Military Emergency Preparedness (CMEP) Program and reflected upon the lessons learned. The more than 36,000 professionals in the U.S. Corps of Engineers have a large emergency-management role. In 1998, the Corps offered its expertise in hazard response to the former Warsaw Pact nations in order to facilitate re-engagement in a transparent manner and to provide a pathway for future NATO membership. The Corps, through its CMEP program, developed consequence management by conducting assessments, identifying capability gaps, developing roadmaps to fill shortfalls in capability, providing seminars and workshops to develop or enhance skills, and testing capacities using Table Top Exercises.

Another key area was the promotion of regional coordination and cooperation. Disasters rarely respect national boundaries, therefore states need contingency plans in place ahead of time. By identifying gaps and creating three to five year road maps, the CMEP aimed to develop government capacities in low stress situations so that they would be better able to respond to a crisis. Ultimately, the goal was to reduce the role of the U.S. military in an international response by raising the threshold at which assistance would be required. Future government approaches to disaster preparedness should consider increasing climate variability and climate change, water resource development, and trans-boundary issues. Improved coordination between government agencies, academia, and the private sector creates the opportunity for ‘Whole-of-Government’ to ‘Whole-of Government’ cooperation.

USAID’s Approach to Climate-Resilient Development

Ms. Jennifer Frankel-Reed, climate change specialist with the U.S. Agency for International Development’s Climate Change Office, discussed USAID’s mandates and how development priorities are addressed in the context of climate change. Among its priorities, USAID promotes economic growth, democratic governance, and environmental sustainability, and has three Presidential initiatives: food security, health and climate change. Currently operating in over 70 field offices, USAID partners at the national and subnational levels with governments, the private sector, and civil society to carry out development programs.

Ms. Frankel-Reed explained that USAID uses an integrated vulnerability assessment approach to “reduce the vulnerability of people, places, and livelihoods to climate change.” USAID uses vulnerability and adaptation assessments to inform adaptation programs. USAID’s adaptation programs focus on three outcomes: 1) improving

access to science and analysis such as monitoring, modeling, and forecasting to inform decision-making; 2) strengthening governance capacity for example, to coordinate, plan and communicate about climate risks and adaptation; and finally, 3) implementing adaptation strategies, and learning about what works to increase climate resilience.

The USAID Climate Change and Development Strategy identifies development entry points in three main areas: clean energy, adaptation, and sustainable landscapes (or REDD+). In addition to dedicated climate change programs, Feed the Future, USAID's flagship food security initiative, also has many climate change associations.

USAID has found that the most effective way to broach the topic of climate change is within a larger discussion of economic and social development. By beginning with something that people care about and then layering in non-climate and climate stresses, it is possible to engage in discussions about vulnerability. This discussion includes identifying when and where people and assets will be exposed to climate stresses; why they are sensitive to that exposure; what are their adaptive capacities and barriers to adaptation; and the potential impacts. Ultimately, this empowers people to come up with their own management strategies and understand the value of considering climate change. Some of USAID's climate change programs include: the Rural Resilience Initiative (R4) in Senegal, Mali Climate Services Assessment, Mozambique Adaptation in Cities, Ethiopia Conflict Resolution Centers, Famine Early Warning Systems Network (FEWS-NET), and Conflict and Climate Change Case Studies conducted by the Foundation for Environmental Security and Sustainability (FESS).

SESSION IV: CASE STUDIES IN EFFECTIVE APPROACHES: FOSTERING REGIONAL RESPONSES

Effective Approaches to Foster Regional Responses

Mr. Paul Bartel, senior analyst at the Humanitarian Information Unit of the U.S. Department of State, presented on the role of the HIU in bringing together interagency analysts to develop responses to humanitarian emergencies. The HIU works with the National Geospatial-Intelligence Agency, USAID, the Department of Defense, and various contractors to promote best practices. The HIU also promotes best practices for humanitarian information management and provides high resolution imagery of disaster response.

Technology advancements have created an opportunity for greater geospatial collaboration. It is now possible to use web technologies to download, exchange, and track data. These tools can be used to create food security maps and track refugee flows and other activities over time. One program, Conflicts Without Borders, maps sub-national and trans-national violence across Africa. The Worldwide Human Geography Working Group is an example of the data collection collaboration using available technologies. Between three and five thousand people are involved in geospatial data collection in Africa and they must be connected to strengthen the flow of information. A certain level of redundancy is helpful because it ensures that the data is always available somewhere. Better data collection and dissemination can help inform governments and civil society and lead to good governance and sustainable development.

Securing the Maritime Domain: Regional Cooperation in West and Central Africa

Commander John J. Driscoll, Deputy Chief of Air and Maritime Programs (J5) at Headquarters U.S. Africa Command, discussed AFRICOM's efforts to increase maritime security in west and central Africa. As the situation stands, hundreds of boats are fishing illegally in African waters because African states do not have the capacity to monitor the 12 miles of territorial sea or the 200 miles in the exclusive economic zone. Additionally, violence in the Gulf of Guinea has been increasing over the past five to six years. Thieves from Nigeria have traveled to Cameroon to rob banks and then flee back into Nigeria where they cannot be pursued by Cameroonian police or armed forces; violence against anchored ships has caused trade through Cotonou to come to a standstill; violence threatens offshore oil production; and, illegal fishing is becoming a threat to food security.

In September of 2010, the Economic Community of Central African States (ECCAS) asked the U.S. for assistance in building cooperation with the Economic Community of West African States (ECOWAS). These two regional organizations encompass all the countries that have a coastline along the Gulf of Guinea. The U.S. has been able to offer expertise in cooperation between regional organizations based on the Caribbean Regional Agreement. In July 2011, the U.S. assisted the two regional organizations as they drafted a multilateral agreement for dealing with criminality in the Gulf of Guinea. The next step is for each state to adopt the agreement and synchronize their maritime sector reforms in defense, law enforcement, and judicial processes. AFRICOM can continue to provide assistance by incorporating elements of the agreements into U.S. sponsored exercises. The key, according to Commander Driscoll is to “start building relationships on something you agree on in order to lay the groundwork for when things get tough.”

The key is to “start building relationships on something you agree on in order to lay the groundwork for when things get tough.”

~ CDR John Driscoll

Killing with Kindness? Effects of Foreign Aid on Violence in Africa

Dr. Michael Findley, Assistant Professor of Political Science at Brigham Young University and Associate Director of BYU’s Political Economy and Development Lab, discussed two research projects about the effectiveness of aid. The current debates about aid effectiveness have created two camps, those who believe more aid is needed and those who believe that aid has been ineffective. Dr. Findley contributes to this important debate by asking, “Does aid increase or decrease violence in Africa?”

In the first study, Dr. Findley examines the relationship between aid shocks and conflict. Aid shocks occur when donors decrease or completely cut off foreign aid. The dependent variable is the onset of armed conflict with 25 or more battle deaths as defined in the Uppsala Conflict Database. The key independent variable is the bottom 15th percentile of aid shocks. The results show that aid shocks significantly and robustly increase the likelihood of conflict. Negative shocks to aid flows are more significant than positive shocks, and results in sub-Saharan Africa are extremely robust. Aid shocks are more likely to lead to conflict in countries with a high dependence on aid. All else equal, the probability of conflict increases by approximately 125 percent with an aid shock.

The second study examines the links between foreign aid and terrorism. Conventional wisdom posits that poverty alleviation is one front for combating terrorism. Former President George W. Bush and President Barack Obama have incorporated development into their counter-terrorism strategies. Dr. Findley tests these assumptions by examining how sectoral aid can improve the lives of citizens, strengthen civil society and effective governance, and increase foreign governments’ capacity to carry out counter-terrorism. The dependent variable, terrorist events, is measured by the ITERATE database. The key independent variable is the distribution of aid by sector. The eight sectors of aid measured in this research are: conflict prevention, education, health, agriculture, governance, civil society, budget, and transport. The key results show that aid in the sectors of education, health, civil society, governance, and conflict all reduce terrorism. Aid in the sectors of budget, agriculture, and transport did not have significant effects on terrorism. Once again, the results were strongest in sub-Saharan Africa. All else equal, the number of terrorist events decreases by 20 to 25 percent for each additional \$25 in aid per person.

The results of these two studies have enormous implications for policy. For one, donors can decrease the likelihood of conflict by coordinating efforts to responsibly allocate and withdraw aid. Moreover, aid can be targeted to specific sectors to decrease the likelihood of terrorist events. Strategic allocation of aid can increase its effectiveness. Key to the debate of aid effectiveness is research on the effects of aid on factors which extend beyond the traditional focus on economic growth.

Greater Virunga Trans-boundary Collaboration within a Context of Fragile State in the Africa Great Lakes Region

Mr. Maxime Nzita Nganga, Deputy Executive Secretary of the Greater Virunga Trans-boundary Collaboration (GVTC), made remarks on the collaboration's origins and the use of transboundary natural resources management as a way to prevent future conflict. The collaboration began as a grassroots movement by park rangers to promote conservation of habitat and species in an area that crosses borders between the Democratic Republic of Congo, Rwanda, and Uganda. One of the biggest challenges for the collaboration has been to operate in conflict areas. The region's natural resources are strained by the unbalanced quality of governance between states, the presence of illegal militia groups, high population density, and poverty. The population in this region is 80 percent dependent on natural resources for its livelihood. Poaching, illegal wildlife trade, and illegal extraction of timber and non-timber forest products are serious threats to the region's natural resources.

Much of the Greater Virunga landscape's population is vulnerable to climate change disturbances, and this vulnerability, coupled with some active conflicts and a residual effect of the past conflicts, makes the region a hot spot for possible conflicts. So far, it is clear that transboundary collaboration of natural resource management has an important role to play in reducing conflict in the region. The collaboration provides an important service to the communities living in the Greater Virunga landscape. A strong ecosystem will be more resilient to the effects of climate change than an ecosystem that is depleted. Conservation now will also reduce the likelihood of conflict over resources in the future. However, further study and analysis are necessary before it can be clearly concluded whether conservation of natural resources can entirely and on its own be an effective tool for conflict management.

LESSONS LEARNED AND NEXT STEPS

The Way Ahead

Dr. Kent Butts, Professor of Political Military Strategy and the Director of National Security Issues Group at the Center for Strategic Leadership at the U.S. Army War College, thanked all the participants and led the closing discussion. He began by reflecting on the key elements of national security: development, defense, and diplomacy. The "three D" approach is essential to prevent conflict. By helping local governments gain legitimacy in the eyes of their own people, the U.S. can stifle the growing grounds for terrorists abroad. Providing human security leads to greater state security. When considering how the U.S. can best spend its dollars, Dr. Butts recommended investing in conflict avoidance. In closing, Dr. Butts asked the panel participants and audience members, "What should be the research agenda for the future?"

Responses from conference participants included:

- *Political dynamics of conflict.* Assess how the parameters of domestic politics affect conflict trends.
- *Socio-cultural aspects of conflict.* Explore why some countries fall outside the curve of social conflict patterns and which cultural-historical-social factors drive conflict behaviors and responses.
- *Military aid effectiveness.* Geo-reference military aid to know more about its correlation with conflict, instability, and counter-terrorism.
- *Disaster data.* Increase the amount of data made public on disasters with geographic specificity and transparency of methodology.
- *Decision-making in disaster prevention and response.* Determine how actors make decisions in preparing for and responding to disasters, what data they need, and what prevents them from acting on early warning systems.
- *Risk management.* Assess what data government actors need to decide what level of risk the government is comfortable taking and how to manage residual risk.
- *Building local capacity for environmental stewardship.* Improve the capacity of people working in the field of trans-boundary natural resource management and establish a system for building local strategic

leadership on climate change. It is necessary to work both with civil society on building capacity and with the government on strategic agreements.

- *How to upscale and downscale case studies.* Determine ways to have national and local governments implement findings from research studies. Make funding available for research projects proposed by African researchers.
- *Data collection vehicles.* Enhance the opportunities to socialize data collection and investigate the potentials of crowd-sourcing data collection.

CONFERENCE CLOSING

Ms. Celeste Ward Gventer, Associate Director of the Robert. S. Strauss Center for International Security and Law, thanked the U.S. Army Senior Service College Fellowship Program, the U.S. Africa Command, the UT College of Liberal Arts, and the panelists and moderators for a successful conference that helped connect researchers, policymakers, and practitioners on emerging issues impacting security in Africa.

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