

RIISING TEMPS AND EMERGING THREATS: THE INTERSECTION OF CLIMATE CHANGE AND NATIONAL SECURITY IN THE 21ST CENTURY

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Each year, the Vermont Journal of Environmental Law (Journal), the Journal for the nation's top-ranked environmental law school, has the unique opportunity to host experts from across the nation, and the world, to debate and discuss influential and significant environmental issues. Without exception, the Journal's 2013 Symposium sought to reinvigorate the nation's climate change discourse through a robust look at the growing link between climate change and national security. Indeed, the U.S. Department of Defense has consistently identified climate change as one of the top threats to U.S. national security

The Journal was not alone in its interest to draw attention to this significant issue. In the months leading up to the 2013 Symposium, President Obama gave a landmark climate change speech revealing that in the last fifteen years, the United States experienced the twelve warmest years on record;¹ U.S. Secretary of the Navy, Ray Mabus, writing for Foreign Policy magazine, addressed the Navy's near "eco-arms race" to rapidly adapt to changes in energy costs and climate demands;² and a scientific paper published in Nature warned of rising greenhouse emissions

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1. Press Release, Office of the Press Sec'y, The White House, Remarks by the President on Climate Change at Georgetown University, Washington D.C. (June 25, 2013 1:45 PM), <http://www.whitehouse.gov/the-press-office/2013/06/25/remarks-president-climate-change>.

2. Ray Mabus, *Green Water: Can the U.S. Navy Win the Eco-Arms Race?* FOREIGN POLICY (Aug. 6, 2013), http://www.foreignpolicy.com/articles/2013/08/06/navy_energy_oil_biofuels_ray_mabus.

leading to unprecedented temperature increases beyond any normal climate variances recorded in the last 150 years.³

Over 200 students, scientists, activists, and attorneys filled the Chase Community Center at Vermont Law School on Friday, October 25, 2013 to hear experts discuss the growing impact of climate change on national security. Entitled, *Rising Temps and Emerging Threats: The Intersection of Climate Change and National Security in the 21st Century*, panelists addressed issues ranging from the military's response to warming temperatures and sea level rise, to the growing humanitarian needs posed by climate-based forced migration and food security.

Opening the Symposium with an overview of the latest scientific findings, keynote speaker, John Steinbruner, Director of the Center for International and Security Studies at the University of Maryland and chair of the fourteen member panel of experts who conducted a study for the National Research Council entitled, *Climate and Social Stress: Recent Trends and Implications for National Security*,⁴ warned participants, "it is prudent to expect the social effects of climate change to be as extensive and as consequential as the ecological effects."

Throughout the day, panelists reflected upon the links between climate change and armed conflict, natural disasters and food shortages and whether current international legal frameworks properly address growing national and international security issues. Current and former employees from the United Nations and Refugees International spoke of the law and policy dilemmas facing their organizations in meeting the needs of those impacted by mass migration and global food insecurity. As a current example, one panelist shared the history of the ongoing legal battle of the northwest Alaska village of Kivalina, which continues to seek damages in federal court for alleged displacement due to rising sea levels caused by greenhouse emissions.

Panelists, including current and former members of the U.S. armed forces, addressed the operational and security challenges facing the military, the role of the laws of war in climate-caused conflicts, and ways in which the U.S. military may adapt its operations to meet the needs of vulnerable populations most impacted by climate change. U.S. government officials from the U.S. Department of Agriculture spoke to adaptation programs to meet national and international food security challenges caused by severe weather events.

3. Camilo Mora et al., *The Projected Timing of Climate Departure From Recent Variability*, 502 NATURE 183-87 (2013).

4. NAT'L RES. COUNCIL, CLIMATE AND SOCIAL STRESS: IMPLICATIONS FOR SECURITY ANALYSIS (John D. Steinbruner, Paul C. Stern, & Jo L. Husbands eds.) (2013).

The Journal is pleased to profile the scholarship and transcribed remarks of many of the experts who participated in the October 2013 Symposium. For the remarks of those experts not included in this book, we welcome you to visit the Vermont Journal of Environmental Law's website or YouTube channel.⁵ For ease of reference, we include a list of all of the participating panelists.

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Friday, October 25, 2013

WELCOME AND OPENING REMARKS

Emily Rimmel

Editor-in-Chief, *Vermont Journal of Environmental Law*

Marc Mihaly

President and Dean, Vermont Law School

Stephen Dycus

Professor of National Security Law, Vermont Law School

Melissa Scanlan

Associate Dean & Director, Environmental Law Program, Vermont Law School

KEYNOTE ADDRESS: THE SECURITY IMPLICATIONS OF CLIMATE CHANGE

John Steinbruner

Director of the Center for International and Security Studies, University of Maryland; Author, *Climate and Social Stress: Implications for Security Analysis*

Melissa Scanlan (Moderator)

Associate Professor, Associate Dean & Director, Environmental Law Program, Vermont Law School

⁵ The Vermont Journal of Environmental Law (2014), available at <http://vjel.vermontlaw.edu>; The Vermont Journal of Environmental Law YouTube Channel, available at https://www.youtube.com/channel/UCtp-8YqefT55Vs9CA_Yqxnw (last visited Apr. 30, 2014).

CLIMATE CHANGE AND NATIONAL SECURITY: CHARACTERIZING THE
NATURE OF THE SECURITY THREAT

D. James Baker

Director of the Global Carbon Measurement Program, William J. Clinton Foundation; Author, *Climate Extremes: Recent Trends with Implications for National Security*

Geoff Dabelko

Professor and Director of Environmental Studies, Voinovich School of Leadership and Public Affairs, Ohio University

John Steinbruner

Director of the Center for International and Security Studies University of Maryland; Author, *Climate and Social Stress: Implications for Security Analysis*

Melissa Scanlan (Moderator)

Associate Dean & Director, Environmental Law Program, Vermont Law School

ADAPTING TO CLIMATE CHANGE: THE U.S. MILITARY'S RESPONSE

Siddhartha Velandy

Major, United States Marine Corps Reserve

Sarah Light

Assistant Professor of Legal Studies, Wharton School of Business, University of Pennsylvania

Jody Prescott, COL (Ret.)

U.S. Army, Senior Fellow, West Point Center for the Rule of Law

Stephen Dycus

Professor of National Security Law, Vermont Law School

William Arkin (Moderator)

Journalist; Author, *American Coup: How a Terrified Government is Destroying the Constitution*

CLIMATE BASED FORCED MIGRATION: ADAPTING TO THE DISPLACEMENT
AND RESETTLEMENT OF PERSONS DUE TO CLIMATE CHANGE

Kate Jastram

Faculty Director, Miller Institute for Global Challenges and the Law, University of California, Berkeley School of Law

Alice Thomas

Climate Displacement Program Manager, Refugees International

Agnes Hurwitz

Rule of Law Coordinator, Regional Bureau for Latin America and the Caribbean, United Nations Development Programme

Madeline Stano

Luke Cole Memorial Fellow & Staff Attorney, Center on Race, Poverty & The Environment

Patrick Parenteau (Moderator)

Senior Counsel, Environmental & Natural Resources Clinic; Professor of Law, Vermont Law School

FOOD SECURITY AS NATIONAL SECURITY: THE FUTURE OF FOOD IN THE
FACE OF CLIMATE CHANGE

William Hohenstein

Director, Climate Change Program Office, U.S. Department of Agriculture

Amy Larkin

Entrepreneur, Environmental Activist; Author, *Environmental Debt: The Hidden Costs of a Changing Global Economy*

Thomas Vogelmann

Dean of the College of Agriculture and Life Sciences, University of Vermont

Jeff Taft-Dick

Former Country Director, United Nations World Food Programme

Laurie Ristino (Moderator)

Director, Center for Agriculture and Food Systems, Vermont Law School

CLOSING REMARKS

Molly Gray

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