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| 7. PERFORMING ORGANIZATION NAMES AND ADDRESSES University of Maryland - College Park Office of Research Administration 3112 Lee Building 7809 Regents Drive College Park, MD 20742 -5141 | | | 8. PERFORMING ORGANIZATION REPORT NUMBER | | |
| 9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS (ES) U.S. Army Research Office P.O. Box 12211 Research Triangle Park, NC 27709-2211 | | | 10. SPONSOR/MONITOR'S ACRONYM(S) ARO | | |
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| 13. SUPPLEMENTARY NOTES The views, opinions and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other documentation. | | | | | |
| 14. ABSTRACT | | | | | |
| 15. SUBJECT TERMS | | | | | |
| 16. SECURITY CLASSIFICATION OF: | | | 17. LIMITATION OF ABSTRACT UU | 15. NUMBER OF PAGES | 19a. NAME OF RESPONSIBLE PERSON Elisabeth Gilmore |
| a. REPORT UU | b. ABSTRACT UU | c. THIS PAGE UU | | | 19b. TELEPHONE NUMBER 301-405-6360 |

RPPR Final Report

as of 16-Aug-2018

Agency Code:

Proposal Number: 64439LSMRI

Agreement Number: W911NF-13-1-0307

INVESTIGATOR(S):

Name: Elisabeth Anne Gilmore

Email: gilmore@umd.edu

Phone Number: 3014056360

Principal: Y

Organization: **University of Maryland - College Park**

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DUNS Number: 790934285

EIN: 526002033

Report Date: 31-May-2018

Date Received: 13-Aug-2018

Final Report for Period Beginning 01-Aug-2013 and Ending 28-Feb-2018

Title: Forecasting Civil Conflict under Different Climate Change Scenarios

Begin Performance Period: 01-Aug-2013

End Performance Period: 28-Feb-2018

Report Term: 0-Other

Submitted By: Elisabeth Gilmore

Email: gilmore@umd.edu

Phone: (301) 405-6360

Distribution Statement: 1-Approved for public release; distribution is unlimited.

STEM Degrees:

STEM Participants:

Major Goals: Develop forecasts of armed conflict under alternative scenarios for socioeconomic development and climate change.

Investigate the empirical basis for the associations between climate variability and political violence via indirect pathways, such as livelihood, food security, and economic underperformance.

Improve the use of socioeconomic development and climate change scenarios as well as the development of intermediate variables that are relevant for forecasting social instability and armed conflict.

This project also includes an extension to conduct investigations on the role of migration and human displacement as an intermediate from climate change to social instability in both the receiving and sending communities.

Accomplishments: Forecasting armed conflict over alternative socioeconomic and climate pathways: We modeled how socioeconomic development, namely economic growth and educational attainment, influences on future levels of intrastate armed conflict and on the challenges to mitigation and adaptation to climate change using the Shared Socioeconomic Pathways (SSPs). Here, we build upon the simulation approach from Hegre et al. (2013) to model the propensity for armed intrastate conflict along the Shared Socioeconomic Pathways (SSPs). We find that projections for climate change as well as armed intrastate conflict depend on expectations of socioeconomic development, although conditions that promote peace may not necessarily facilitate climate mitigation and adaptation. While economic growth lowers the risk of armed conflict, this growth is generally associated with increased greenhouse gas (GHG) emissions and increased costs of mitigation policies. We find that the sustainable development pathway that has lower challenges to mitigation and adaptation is as conducive to global peace as the higher economic growth associated with the fossil fuel based development pathway. Building on our foundational paper by Hegre et al. (2016), we extend this work to model future levels of intrastate armed conflict with the feedback effects of armed conflict on economic growth.

Hegre H, Buhaug, H., Calvin, K.V., Nordkvelle, J., Waldhoff, S.T., Gilmore, E.A. (2016) Forecasting civil conflict along the Shared Socioeconomic Pathways, Environmental Research Letters, 11(5). DOI: 10.1088/1748-9326/11/5/054002

Gilmore, E.A. Hegre, H., Moyer, J., Bowsby, D., Petrova, K. (2017). Projecting Conflict and Cooperation under Climate Change Scenarios. White Paper. Developed for the IMPACTS World 2017

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Gilmore, E.A. & Hegre, H. (2017). Projecting climate change, socioeconomic conditions and armed conflict: Incorporating forecasting techniques and Integrated Assessment Models (IAM). Prepared for the International Studies Association annual meeting, February 2017

Scenarios for food security and wellbeing: We have also developed scenarios related to food availability and access to examine the role of socioeconomic development and climate policy. While stringent climate policy is critical to avoiding widespread damages, climate mitigation measures may also generate unintended consequences to food availability and access due to land use competition and economic burden of mitigation. Using the Global Change Assessment Model (GCAM), we investigate how climate policy alters vulnerability with respect to caloric intake, food prices and expenditures on food. We find that scenarios with higher economic growth reduce food-related vulnerability; however, climate policies that preserve agricultural activities – e.g. separating afforestation activities from other land-based mitigation policies – can help contain increases in food prices.

Cui, Y. Risks to Food Availability and Access from Climate Policies: An Integrated Assessment of Regional Food Availability and Access with Alternative Climate Mitigation Strategies to 2050. UMD Dissertation.

Cui, Y., Waldhoff, S., Hultman, N., Clarke, L., Patwardhan, A., Gilmore, E.A. (2018). Improving the representation of food accessibility in an Integrated Assessment Model. Submitted to Environmental Modelling and Software

Cui, Y., Waldhoff, S., Hultman, N., Clarke, L., Gilmore, E.A. (2018). Risks to food availability and access from alternate land-based climate policies. Submitted to Environmental Research Letters

Food prices, armed conflict and political unrest: Following the spike in global and regional food prices in 2008 – 2009, there has been considerable interest in whether the increase in food prices led to the observed incidences of societal and political unrest and conflict and further, whether there are broader implications for unrest if climatic changes lead to future increases in food prices. The influence of increases and volatility in food prices on societal and political unrest and conflict remains contested, in part because empirical testing has been hindered by the availability and suitability of food prices, indices, and other proxies. Here, we conduct a critical review of popular indices, prices, and remote sensing products and make recommendations for future analyses of the relationships between food prices and violence. First, we review commonly employed and publicly accessible datasets of indices and prices as well as meteorological and remote sensing products, evaluating the construction of these datasets and their strengths and shortcomings. We then investigate how these issues may influence the results from existing studies. Importantly, we show that minor corrections to the country-level food price index generate different results in terms of the statistical significance of food prices on different forms and measure of armed conflict and violence. Further, we show the existing food price datasets do not have sufficient coverage to replace the indices for large – N analyses and that remote sensing products cannot be easily translated into food prices. We conclude that existing data and studies should be viewed with caution and that future data collection on detailed food prices is necessary to improve the quantitative analyses.

Gilmore, E.A., Buhaug, H., & Jones, K. (2017). Quality, challenges, and pitfalls of food price data for investigating political violence and conflict. Prepared for the American Political Science Association Meeting, August 2017

Buhaug, H., Gilmore, EA, Jones, K. Rudolfson, I. (2017). Food price shocks and political instability across scales. Prepared for the Peace Science Society annual meeting, October 2016

Quantitative and qualitative analysis of climate change, violence, and social stability: As part of this effort, we have examined different disciplinary perspectives through quantitative and qualitative approaches.

We produced a special issue of Springer Current Climate Change Reviews on the contributions of different disciplines to understanding the associations between climate and conflict.

Gilmore, E.A. (2017). Introduction to the special issue: Disciplinary perspectives on climate change and violence. Springer Current Climate Change Reviews: Special issue on Climate and Conflict. <https://link.springer.com/article/10.1007/s40641-017-0081-y>

We have also looked at the benefits of alternative quantitative specifications for investigating climate and conflicts.

Nordkvelle, J., Rustad, S.A., Salmivalli, M. (2017). Identifying the effect of climate variability on communal conflict

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through randomization. *Climatic Change*. 141 (4): 627–639

We conducted a case study of how climate change may influence social systems in Pakistan. This work is still forthcoming.

Climate change, migration, and social unrest: With the add-on grant, we worked on theory building related to climate change, migration, and conflict. This remains one of the least well-understood pathways between climate and conflict through migration. This arises in part because of the need to engage scholars and practitioners from many disciplines (e.g. physical climate scientists, environmental migration scholars and conflict scholars). This complicates synthesis of an entire pathway due to any number of challenges due to difficulties describing concepts, linguistic imprecision and ingrained models of systems and causality. To address these issues, we pursued a mental models/expert elicitation approach. In this approach, experts are guided through a structured protocol to systematically construct and explore their models as well as evaluate subjective estimates of the strength of evidence for different elements and pathways.

Gilmore, E.A. (2018). Using structured expert models to evaluate the climate-migration-conflict pathway. Prepared for the International Studies Association annual meeting. San Francisco, CA. April, 2018

Training Opportunities: Nothing to Report

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Results Dissemination: Peer-reviewed publications:

Gilmore, E.A. (2017). Introduction to the special issue: Disciplinary perspectives on climate change and violence. Springer Current Climate Change Reviews: Special issue on Climate and Conflict. <https://link.springer.com/article/10.1007/s40641-017-0081-y>

Nordkvelle, J., Rustad, S.A., Salmivalli, M. (2017). Identifying the effect of climate variability on communal conflict through randomization. *Climatic Change*. 141 (4): 627–639

Hegre H, Buhaug, H., Calvin, K.V., Nordkvelle, J., Waldhoff, S.T., Gilmore, E.A. (2016) Forecasting civil conflict along the Shared Socioeconomic Pathways, *Environmental Research Letters*, 11(5). DOI: 10.1088/1748-9326/11/5/054002

Buhaug, Halvard, Jonas Nordkvelle, Thomas Bernauer, Tobias Böhmelt, Michael Brzoska, Joshua W. Busby, Antonio Ciccone, Hanne Fjelde, Erik Gartzke, Nils Petter Gleditsch, Jack A. Goldstone, Håvard Hegre, Helge Holtermann, Vally Koubi, Jasmin S.A. Link, Peter Michael Link, Päivi Lujala, John O'Loughlin, Clionadh Raleigh, Jürgen Scheffran, Janpeter Schilling, Todd G. Smith, Ole Magnus Theisen, Richard S.J. Tol, Henrik Urdal, and Nina von Uexkull. 2014. One Effect to Rule Them All? A Comment on Climate and Conflict. *Climatic Change*, 127.3-4 (2014): 391-397.

Dissertations:

Cui, Y. Risks to Food Availability and Access from Climate Policies: An Integrated Assessment of Regional Food Availability and Access with Alternative Climate Mitigation Strategies to 2050. UMD Dissertation: <https://drum.lib.umd.edu/handle/1903/18799>

Vestby, J. Climate, development, and conflict: Learning from the past and mapping uncertainties of the future. University of Oslo Dissertation: <https://www.duo.uio.no/bitstream/handle/10852/61058/Vestby-PhD--2018.pdf>

Invited Talks:

Gilmore, E.A. (2017). From climate change to armed conflict: Pathways, forecasts and policy. American University, Environmental Seminar Series, September 15, 2017

Gilmore, E.A. (2016). Climate change and conflict: Past, present and future. Public seminar at the Independent University of Bangladesh (IUB). October 9, 2016

Gilmore, E.A. (2016). Getting to 1.5oC: Climate change, climate policies and conflict. Environmental Governance, Climate Change, and Peacebuilding, International Expert Forum, Folke Bernadotte Academy (FBA) and the International Peace Institute (IPI), Stockholm, Sweden, 20 March.

Buhaug, H. (2016). Climate wars? A comment. Global Governance Seminar, University College London, 19 January.

Conference Presentations:

Gilmore, E.A. & Hegre, H. (2016). Economic growth, armed conflict and the implications for climate change. Society for Risk Analysis. San Diego, CA, December 14 – 17.

Gilmore, E.A. & Patwardhan, A. (2016). Migration and social stress in the face of climate risk. The Hugo Conference: Environment, Migration, Politics. Liege, Belgium, November 3 – 5

Buhaug, H., E. Gilmore, K. Jones, and I. Rudolfson. (2016). Food price shocks, state institutions, and unrest in urban Africa. European Network of Peace Scientists (NEPS) annual conference, Milan, 20-22 June.

Nordkvelle, Jonas (2016). "Does reduced livelihood increase the willingness to use violence?" European Network of Peace Scientists (NEPS) annual conference, Milan, 20- 22 June.

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Nordkvelle, Jonas (2016). "Randomized rain falls on political groups". International Studies Association (ISA), Atlanta, Georgia, 16 – 19 March.

Cui, Y., Waldhoff, S., Clarke, L., Hultman, N., & Gilmore, E.A. (2015). Socioeconomic development, climate change and regional food security, Integrated Assessment Model Consortium, Annual Meeting, 16 – 17 November.

Gilmore, E.A., Cui, Y., Waldhoff, S.T. (2015). Evaluating the impact of climate policies on regional food availability and accessibility using an Integrated Assessment Model. American Geophysical Union Fall Meeting, San Francisco, CA, December 14 – 18, 2015

Gilmore E.A., Hegre, H., Buhaug, H., Calvin, K.V., Nordkvelle, J., Waldhoff, S.T. (2015). Forecasting Armed Conflict: Risks and Interventions. Society for Risk Analysis, Arlington, VA, December 6 – 9, 2015

Non-Peer-Reviewed Conference Proceeding publications (other than abstracts)

Gilmore, E.A. (2018). Using structured expert models to evaluate the climate-migration-conflict pathway. Prepared for the International Studies Association annual meeting. San Francisco, CA. April, 2018

Gilmore, E.A., Buhaug, H., & Jones, K. (2017). Quality, challenges, and pitfalls of food price data for investigating political violence and conflict. Prepared for the American Political Science Association Meeting, August 2017

Gilmore, E.A. & Hegre, H. (2017). Projecting climate change, socioeconomic conditions and armed conflict: Incorporating forecasting techniques and Integrated Assessment Models (IAM). Prepared for the International Studies Association annual meeting, February 2017

Gilmore, E.A. Hegre, H., Moyer, J., Bowsby, D., Petrova, K. (2017). Projecting Conflict and Cooperation under Climate Change Scenarios. White Paper. Developed for the IMPACTS World 2017

Buhaug, H., Gilmore, EA, Jones, K. and Rudolfson, I. (2016). Food price shocks and political instability across scales. Prepared for the Peace Science Society annual meeting, October 2016

Submitted Manuscripts

Cui, Y., Waldhoff, S., Hultman, N., Clarke, L., Patwardhan, A., Gilmore, E.A. (2018). Improving the representation of food accessibility in an Integrated Assessment Model. Submitted to Environmental Modelling and Software

Cui, Y., Waldhoff, S., Hultman, N., Clarke, L., Gilmore, E.A. (2018). Risks to food availability and access from alternate land-based climate policies. Submitted to Environmental Research Letters

Honors and Awards: Karl Deutsch Award for 2015 from the International Studies Association (ISA) was awarded to Halvard Buhaug.

Protocol Activity Status:

Technology Transfer: Nothing to Report

PARTICIPANTS:

Participant Type: PD/PI

Participant: Elisabeth Anne Gilmore

Person Months Worked: 12.00

Funding Support:

Project Contribution:

International Collaboration:

International Travel:

National Academy Member: N

Other Collaborators:

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Participant Type: Co PD/PI
Participant: Anand Patwardhan
Person Months Worked: 2.00
Project Contribution:
International Collaboration:
International Travel:
National Academy Member: N
Other Collaborators:

Funding Support:

Participant Type: Co PD/PI
Participant: Stephanie Waldhoff
Person Months Worked: 6.00
Project Contribution:
International Collaboration:
International Travel:
National Academy Member: N
Other Collaborators:

Funding Support:

Participant Type: Co PD/PI
Participant: Katherine Calvin
Person Months Worked: 2.00
Project Contribution:
International Collaboration:
International Travel:
National Academy Member: N
Other Collaborators:

Funding Support:

Participant Type: Co PD/PI
Participant: Halvard Buhag
Person Months Worked: 4.00
Project Contribution:
International Collaboration:
International Travel:
National Academy Member: N
Other Collaborators:

Funding Support:

Participant Type: Co PD/PI
Participant: Håvard Hegre
Person Months Worked: 4.00
Project Contribution:
International Collaboration:
International Travel:
National Academy Member: N
Other Collaborators:

Funding Support:

Participant Type: Co PD/PI
Participant: John Steinbrunner
Person Months Worked: 2.00
Project Contribution:
International Collaboration:
International Travel:
National Academy Member: N
Other Collaborators:

Funding Support:

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Participant Type: Postdoctoral (scholar, fellow or other postdoctoral position)

Participant: Kevin Jones

Person Months Worked: 10.00

Funding Support:

Project Contribution:

International Collaboration:

International Travel:

National Academy Member: N

Other Collaborators:

Participant Type: Graduate Student (research assistant)

Participant: Elizabeth Tennant

Person Months Worked: 12.00

Funding Support:

Project Contribution:

International Collaboration:

International Travel:

National Academy Member: N

Other Collaborators:

Participant Type: Graduate Student (research assistant)

Participant: Jonas Vestby / Nordkvelle

Person Months Worked: 12.00

Funding Support:

Project Contribution:

International Collaboration:

International Travel:

National Academy Member: N

Other Collaborators:

Participant Type: Graduate Student (research assistant)

Participant: Yiyun (Ryna) Cui

Person Months Worked: 12.00

Funding Support:

Project Contribution:

International Collaboration:

International Travel:

National Academy Member: N

Other Collaborators:

Participant Type: Graduate Student (research assistant)

Participant: Simran Singh

Person Months Worked: 6.00

Funding Support:

Project Contribution:

International Collaboration:

International Travel:

National Academy Member: N

Other Collaborators:

Participant Type: Graduate Student (research assistant)

Participant: Zafar Imran

Person Months Worked: 6.00

Funding Support:

Project Contribution:

International Collaboration:

International Travel:

National Academy Member: N

Other Collaborators:

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Participant Type: Graduate Student (research assistant)

Participant: Bing Han

Person Months Worked: 6.00

Funding Support:

Project Contribution:

International Collaboration:

International Travel:

National Academy Member: N

Other Collaborators:

Participant Type: Graduate Student (research assistant)

Participant: Mounica Devagudi

Person Months Worked: 6.00

Funding Support:

Project Contribution:

International Collaboration:

International Travel:

National Academy Member: N

Other Collaborators:

ARTICLES:

Publication Type: Journal Article

Peer Reviewed: Y

Publication Status: 1-Published

Journal: Climatic Change

Publication Identifier Type:

Publication Identifier:

Volume: 0

Issue: 0

First Page #: 0

Date Submitted:

Date Published:

Publication Location:

Article Title: One effect to rule them all? A comment on climate and conflict

Authors:

Keywords: climate change, conflict, meta-analysis

Abstract: A recent Climatic Change review article reports a remarkable convergence of scientific evidence for a link between climatic events and violent intergroup conflict, thus departing markedly from other contemporary assessments of the empirical literature. This commentary revisits the review in order to understand the discrepancy. We believe the origins of the disagreement can be traced back to the review article's underlying quantitative meta-analysis, which suffers from shortcomings with respect to sample selection and analytical coherence. A modified assessment that addresses some of these problems suggests that scientific research on climate and conflict to date has produced mixed and inconclusive results.

Distribution Statement: 1-Approved for public release; distribution is unlimited.

Acknowledged Federal Support:

Publication Type: Journal Article

Peer Reviewed: Y

Publication Status: 1-Published

Journal: Current Climate Change Reports

Publication Identifier Type: DOI

Publication Identifier: 10.1007/s40641-017-0081-y

Volume: 3

Issue: 4

First Page #: 193

Date Submitted:

Date Published: 11/1/17 12:00AM

Publication Location:

Article Title: Introduction to Special Issue: Disciplinary Perspectives on Climate Change and Conflict

Authors: Elisabeth A. Gilmore

Keywords:

Abstract:

Distribution Statement: 1-Approved for public release; distribution is unlimited.

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Publication Type: Journal Article Peer Reviewed: **Publication Status:** 5-Submitted
Journal: Environmental Modelling and Software
Publication Identifier Type: **Publication Identifier:**
Volume: **Issue:** **First Page #:**
Date Submitted: **Date Published:**
Publication Location:

Article Title: Improving the representation of food accessibility in an Integrated Assessment Model

Authors: Y., Cui, S., Waldhoff, N., Hultman, L., Clarke, A., Patwardhan, E.A., Gilmore

Keywords: Engel's coefficient; hunger; staple foods; integrated assessment model; Shared Socioeconomic Pathways; climate change

Abstract: Hunger is often reported as the population that is undernourished. Undernourishment, however, masks the importance of income and food prices for both hunger and economic wellbeing. Here, we implement a modified Engel's coefficient – expenditures on staple foods divided by income - weighted by total caloric consumption to evaluate food accessibility in an Integrated Assessment Model (IAM), the Global Change Assessment Model (GCAM). We extend GCAM to estimate consumer prices and then project food accessibility by region along the Shared Socioeconomic Pathways (SSPs). These projections highlight the importance of sustained economic growth in increasing caloric consumption and lowering expenditures on staple foods. Increases in food prices that could result from climatic shocks, however, may reverse these gains. Capturing the economic dimensions of hunger in GCAM facilitates the evaluation of interactions with the costs and structure of climate policies.

Distribution Statement: 1-Approved for public release; distribution is unlimited.

Acknowledged Federal Support:

Publication Type: Journal Article Peer Reviewed: **Publication Status:** 5-Submitted
Journal: Environmental Research Letters
Publication Identifier Type: **Publication Identifier:**
Volume: **Issue:** **First Page #:**
Date Submitted: **Date Published:**
Publication Location:

Article Title: Risks to food availability and access from alternate land-based climate policies

Authors: Ryna Yiyun, Cui, Stephanie, Waldhoff, Nathan, Hultman, Leon, Clarke, Elisabeth, Gilmore

Keywords: food prices, climate policy

Abstract: Mitigating greenhouse gas (GHG) emissions is necessary to reduce the overall negative climate change impacts on crop yields and agricultural production. However, certain mitigation measures may generate unintended consequences to food availability and food access due to both land use competition and economic burden of mitigation. Prior research has found that specific GHG mitigation policies reduce food availability and raise global crop prices, and changes in food price and income jointly decrease caloric intake and increase population at risk of hunger. We extend previous analysis by: looking at additional economic aspects of food security through consumers' staple food budget share, and comparing between alternate land-based climate policy designs. We find that as we increase our ambition to achieve stringent climate targets, two policy conditions tend to have large impacts on food accessibility, mainly driven by competing land use and increasing food prices.

Distribution Statement: 1-Approved for public release; distribution is unlimited.

Acknowledged Federal Support:

CONFERENCE PAPERS:

Publication Type: Conference Paper or Presentation **Publication Status:** 0-Other
Conference Name: European Network of Peace Scientists (NEPS) annual conference
Date Received: 31-Aug-2016 **Conference Date:** 13-Jun-2016 **Date Published:** 31-Aug-2016
Conference Location: Milan, Italy
Paper Title: Food price shocks, state institutions, and unrest in urban Africa.
Authors: Halvard, Buhaug, Elisabeth, Gilmore, Kevin, Jones, Ida, Rudolfson
Acknowledged Federal Support: Y

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Publication Type: Conference Paper or Presentation **Publication Status:** 0-Other
Conference Name: European Network of Peace Scientists (NEPS) annual conference,
Date Received: 31-Aug-2016 Conference Date: 13-Jun-2016 Date Published: 31-Aug-2016
Conference Location: Milan, Italy
Paper Title: Does reduced livelihood increase the willingness to use violence?
Authors: Jonas, Nordkvelle
Acknowledged Federal Support: **Y**

Publication Type: Conference Paper or Presentation **Publication Status:** 0-Other
Conference Name: International Studies Association
Date Received: 31-Aug-2016 Conference Date: 16-Mar-2016 Date Published: 31-Aug-2016
Conference Location: Atlanta, Georgia
Paper Title: Randomized rain falls on political groups
Authors: Jonas, Nordkvelle
Acknowledged Federal Support: **Y**

Publication Type: Conference Paper or Presentation **Publication Status:** 0-Other
Conference Name: Integrated Assessment Model Consortium, Annual Meeting
Date Received: 31-Aug-2016 Conference Date: 09-Nov-2015 Date Published: 31-Aug-2016
Conference Location: Potsdam, Germany
Paper Title: Socioeconomic development, climate change and regional food security
Authors: Yiyun, Cui, Stephanie, Waldhoff, Leon, Clarke, Nathan, Hultman, Elisabeth, Gilmore
Acknowledged Federal Support: **Y**

Publication Type: Conference Paper or Presentation **Publication Status:** 0-Other
Conference Name: American Geophysical Union Fall Meeting
Date Received: 31-Aug-2016 Conference Date: 15-Dec-2015 Date Published: 31-Aug-2016
Conference Location: San Francisco, CA
Paper Title: Evaluating the impact of climate policies on regional food availability and accessibility using an Integrated Assessment Model
Authors: Elisabeth, Gilmore, Yiyun, Cui, Stephanie, Waldhoff
Acknowledged Federal Support: **Y**

Publication Type: Conference Paper or Presentation **Publication Status:** 0-Other
Conference Name: American Geophysical Union Fall Meeting
Date Received: 31-Aug-2016 Conference Date: 14-Dec-2015 Date Published: 31-Aug-2016
Conference Location: San Francisco, CA
Paper Title: Evaluating the impact of climate policies on regional food availability and accessibility using an Integrated Assessment Model
Authors: Elisabeth, Gilmore, Yiyun, Cui, Stephanie, Waldhoff
Acknowledged Federal Support: **Y**

Publication Type: Conference Paper or Presentation **Publication Status:** 0-Other
Conference Name: Society for Risk Analysis
Date Received: 31-Aug-2016 Conference Date: 07-Dec-2015 Date Published: 31-Aug-2016
Conference Location: Arlington, VA
Paper Title: Forecasting Armed Conflict: Risks and Interventions
Authors: Elisabeth, Gilmore, Havard, Hegre, Halvard, Buhaug, Katherine, Calvin, Jonas, Nordkvelle, Stephanie, \\\nAcknowledged Federal Support: **Y**

RPPR Final Report
as of 16-Aug-2018

Publication Type: Conference Paper or Presentation **Publication Status:** 0-Other
Conference Name: Environmental Governance, Climate Change, and Peacebuilding, International Expert Forum
Date Received: 31-Aug-2016 Conference Date: 20-May-2016 Date Published: 31-Aug-2016
Conference Location: Stockholm, Sweden
Paper Title: Getting to 1.5 degrees C: Climate change, climate policies and conflict.
Authors: Elisabeth, Gilmore
Acknowledged Federal Support: **Y**

Publication Type: Conference Paper or Presentation **Publication Status:** 0-Other
Conference Name: Global Governance Seminar, University College London
Date Received: 31-Aug-2016 Conference Date: 19-Jan-2016 Date Published: 31-Aug-2016
Conference Location: London, UK
Paper Title: Climate wars? A comment
Authors: Halvard, Buhaug
Acknowledged Federal Support: **Y**

Publication Type: Conference Paper or Presentation **Publication Status:** 0-Other
Conference Name: International Studies Association
Date Received: Conference Date: 10-Feb-2017 Date Published:
Conference Location: Baltimore, MD
Paper Title: Projecting climate change, socioeconomic conditions and armed conflict: Incorporating forecasting techniques and Integrated Assessment Models (IAM)
Authors: Elisabeth A Gilmore, Håvard Hegre
Acknowledged Federal Support: **Y**

Publication Type: Conference Paper or Presentation **Publication Status:** 0-Other
Conference Name: American Political Science Association
Date Received: 31-Aug-2017 Conference Date: 31-Aug-2017 Date Published:
Conference Location: San Francisco, CA
Paper Title: Quality, Challenges, and Pitfalls of Food Price Data for Investigating Political Violence and Conflict
Authors: Elisabeth A Gilmore, Halvard Buhaug, Kevin Jones
Acknowledged Federal Support: **Y**

Publication Type: Conference Paper or Presentation **Publication Status:** 0-Other
Conference Name: Society for Risk Analysis
Date Received: 31-Aug-2017 Conference Date: 12-Dec-2016 Date Published:
Conference Location: San Diego, CA
Paper Title: Economic growth, armed conflict and the implications for climate change.
Authors: Elisabeth A Gilmore, Håvard Hegre
Acknowledged Federal Support: **Y**

Publication Type: Conference Paper or Presentation **Publication Status:** 0-Other
Conference Name: The Hugo Conference: Environment, Migration, Politics
Date Received: 31-Aug-2017 Conference Date: 03-Nov-2016 Date Published:
Conference Location: Liege, Belgium
Paper Title: Migration and social stress in the face of climate risk
Authors: Elisabeth A Gilmore, Anand Patwardhan
Acknowledged Federal Support: **Y**

RPPR Final Report
as of 16-Aug-2018

Publication Type: Conference Paper or Presentation **Publication Status:** 0-Other
Conference Name: ublic seminar at the Independent University of Bangladesh (IUB)
Date Received: 31-Aug-2017 Conference Date: 09-Oct-2016 Date Published:
Conference Location: Dhaka, Bangladesh
Paper Title: Climate change and conflict: Past, present and future.
Authors: Elisabeth A Gilmore
Acknowledged Federal Support: **Y**

Publication Type: Conference Paper or Presentation **Publication Status:** 0-Other
Conference Name: IMPACTS World
Date Received: Conference Date: 11-Oct-2017 Date Published:
Conference Location: Potsdam, Germany
Paper Title: Projecting Conflict and Cooperation under Climate Change Scenarios
Authors: Elisabeth, Gilmore, Håvard, Hegre, Kristina, Petrova, Jonathan, Moyer, Drew, Bowsby
Acknowledged Federal Support: **Y**

Publication Type: Conference Paper or Presentation **Publication Status:** 0-Other
Conference Name: International Studies Association
Date Received: 13-Aug-2018 Conference Date: 04-Apr-2018 Date Published:
Conference Location: San Francisco, CA
Paper Title: Using structured expert models to evaluate the climate-migration-conflict pathway
Authors: Elisabeth, Gilmore
Acknowledged Federal Support: **Y**

DISSERTATIONS:

Publication Type: Thesis or Dissertation
Institution: University of Maryland
Date Received: 31-Aug-2016 Completion Date: 8/31/16 5:52PM
Title: Risks to Food Availability and Access from Climate Policies
Authors: Yiyun, Cui
Acknowledged Federal Support: **Y**

Publication Type: Thesis or Dissertation
Institution: University of Oslo
Date Received: Completion Date: 5/1/18 8:17PM
Title: Climate, development, and conflict: Learning from the past and mapping uncertainties of the future.
Authors: Vestby, Jonas
Acknowledged Federal Support: **Y**

Nothing to report in the uploaded pdf (see accomplishments)