

# JUSTIN STALLER MANKIN

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## CONTACT INFORMATION

Lamont-Doherty Earth Observatory  
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## RESEARCH

Climate change, variability, impacts and uncertainty; human and natural systems vulnerability and response to climate variability and change

## CURRENT POSITION

**Postdoctoral Research Scientist**, The Earth Institute of Columbia University, jointly appointed between Lamont-Doherty Earth Observatory (LDEO) & The Center for Climate Systems Research (CCSR) based at NASA Goddard Institute for Space Studies

## EDUCATION

**Ph.D.**, Environment & Resources (E-IPER), 2015  
**Stanford University**, School of Earth, Energy, & Environmental Sciences, Stanford, California USA

**M.P.A.**, Environmental Science & Policy, 2010  
**Columbia University**, The Earth Institute & SIPA, New York, New York USA

**M.Sc.**, Global Politics & Development Studies, 2008  
**The London School of Economics (LSE)**, London, England UK

**B.A.**, Political Science, 2004  
**Columbia University**, New York, New York USA

## PUBLICATIONS

### MANUSCRIPTS IN PREPARATION

**Mankin, J. S.**, D. Viviroli, M. M. Mekonnen, A. Y. Hoekstra, and N. S. Diffenbaugh, Irreducible hydroclimatic variability and population exposure to future water deficits, *in revision*.

Schultz, K., **J. S. Mankin**, Sources of uncertainty in forecasting the climate-conflict relationship, *under review*.

Coats, S., **J. S. Mankin**, Variability in drought occurrence in the American Southwest *in prep*.

Singh, D, D. L. Swain, **J. S. Mankin**, D. E. Horton, L. Thomas, N. S. Diffenbaugh, Trends, physical causes, and attribution of the North American winter temperature dipole, *in prep*.

Swain, D. L., D. Singh, **J.S. Mankin**, D. E. Horton, L. Thomas, N. S. Diffenbaugh, Physical mechanisms of the North American winter dipole, *in prep*.

**Mankin, J. S.**, M. Tsiang, B. Rajaratnam, and N. S. Diffenbaugh, A model of Afghan poppy farmer decision-making, *in prep*.

### PEER-REVIEWED ARTICLES

**Mankin, J. S.**, D. Viviroli, D. Singh, A. Y. Hoekstra, and N. S. Diffenbaugh, The potential for snow to supply human water demand in the present and future, *Environmental Research Letters*, 2015, DOI 10.1088/1748-9326/10/11/114016.

**Mankin, J. S.**, N. S. Diffenbaugh, Influence of temperature and precipitation variability on near-term snow trends, *Climate Dynamics*, (2014), DOI 10.1007/s00382-014-2357-4.

Siegfried, T., T. Bernauer, R. Guennet, S. Sellars, A. W. Robertson, **J. S. Mankin**, P. Bauer-Gottwein, Will Climate Change Exacerbate or Mitigate Water Stress in Central Asia?, *Climatic Change*, **112** (3-4), 881 (2011), DOI 10.1007/s10584-011-0253-z.

**Mankin, J. S.**, Gaming the system: how Afghan opium underpins local power, *Journal of International Affairs*, **63** (1), 195 (2009).

#### PEER-REVIEWED BOOK CHAPTERS

Moore, F., **J. S. Mankin**, A. H. Becker, Disciplines: Integrating Climate and Social Sciences, Chapter 4 in *Climate Cultures: Anthropological Perspectives on Climate Change*. Jessica Barnes and Michael Dove (eds). New Haven: Yale University Press, 2015.

#### OTHER PUBLICATIONS

**Mankin, J. S.**, Rotten to the core, *Foreign Policy*, (2011).

**Mankin, J. S.**, Preventive semantics, letter to Melvyn P. Leffler, *Foreign Policy*, 146 (2005).

#### ACADEMIC APPOINTMENTS

**Columbia University**, New York, New York USA  
Postdoctoral Research Scientist, The Earth Institute: Lamont-Doherty Earth Observatory &  
Center for Climate Systems Research, NASA GISS **Fall 2015-2017**

**Stanford University**, Stanford, California USA  
Teaching Assistant, EARTHSYS 41N, The Global Warming Paradox **Fall 2013**  
Teaching Consultant, BIO/EARTHSYS 147/247, Controlling Climate Change **Spring 2012**

**Columbia University**, New York, New York, USA  
Research Assistant, The Earth Institute Water Center **Winter 2010**

#### ACADEMIC HONORS AND AWARDS

**Earth Institute Postdoctoral Fellowship**, Lamont-Doherty Earth Observatory & The Center for Climate Systems Research, 2015-2017.

**Northeast Climate Science Center Fellowship**, The Center for Climate Systems Research & University of Massachusetts, Amherst, 2015-2017.

**Geography Postdoctoral Fellowship**, Dartmouth College, 2015-2017. (*declined*)

**Predocloral Science Fellowship**, Center for International Security and Cooperation (CISAC), Stanford University, tuition and stipend, 2014-2015.

**Stanford Center on International Conflict and Negotiation (SCICN) Fellowship**, Stanford Law School, 2012-2013.

**Rising Environmental Leadership Program (RELP)**, Woods Institute for the Environment, Stanford University, 2012-2013.

**E-IPER Graduate Summer Research Grant**, 2012.

**McGee Grant**, Stanford University, School of Earth Sciences, 2011.

**Margaret Jonsson Family Foundation Fellowship**, School of Earth Sciences, Stanford Univer-

sity, tuition and stipend, 2010-2014.

**Environmental Science Academic Fellowship**, Columbia University, 2010.

**Andrew Wellington Cordier Essay Winner**, Columbia University, 2009.

**Distinction**, M.S. Thesis, LSE, 2008.

ACADEMIC  
CERTIFICATIONS

**National Centre of Competence in Research, Climate (NCCR)**, Grindewald, Switzerland  
NCCR Swiss Climate Research Summer School **Summer 2013**

**National Center for Atmospheric Research (NCAR)**, Boulder, CO, USA  
Community Earth System Model (CESM) Workshop **Summer 2012**

PRESENTATIONS

22. *forthcoming* Horton, D. E., **Mankin, J.S.**, Singh, D., Swain, D. L., Johnson, N. C., Diffenbaugh, N. S., Probability of Atmospheric Circulation Pattern Occurrence in Pre-Industrial, Historical, and Future Climates, American Geophysical Union Annual Meeting, San Francisco, CA, USA, 18 December, 2015 (*poster*).

21. *forthcoming* Diffenbaugh, N. S., Horton, D. E., Singh, D., Swain, D. L., Touma, D. E., **Mankin, J. S.**, Using Atmospheric Circulation Patterns to Detect and Attribute Changes in the Risk of Extreme Climate Events, American Geophysical Union Annual Meeting, San Francisco, CA, USA, 15 December, 2015 (*talk*).

20. **Mankin, J. S.**, Climate certainty, uncertainty and human water availability in a warming world, Stanford University, Stanford, CA, USA, 12 June 2015.

19. Diffenbaugh, N. S., **J. S. Mankin**, D. Singh, D. Swain, Earth Matters Panel Series, "A Matter of Degrees", School of Continuing Education, Stanford University, Stanford, CA, USA, 24 February 2015 (*Invited talk*).

18. **Mankin, J. S.**, Near-term hydroclimatic change, climate uncertainty, and adaptation decision-making, Ocean & Climate Physics Seminar, Lamont-Doherty Earth Observatory, Palisades, NY (*Invited talk*).

17. **Mankin, J. S.**, Crossing the isotherm: climate uncertainty, snow, and water security in a warming world. Center for International Security and Cooperation (CISAC), Freeman Spogli Institute (FSI), Stanford, CA, USA, 15 January 2015 (*Invited talk*).

16. **Mankin, J. S.**, D. Viviroli, M. M. Mekonnen, A. Y. Hoekstra, and N. S. Diffenbaugh, Quantifying the crucial role of snow in supplying human water demand. American Geophysical Union Annual Meeting, San Francisco, CA, USA, 15 December 2014 (*talk*).

15. **Mankin, J. S.** and N. S. Diffenbaugh, Internal variability's influence on future Northern Hemisphere snow accumulation. American Geophysical Union Annual Meeting, San Francisco, CA, USA, 10 December 2013 (*Poster*).

14. **Mankin, J. S.** and N. S. Diffenbaugh, Climate controls on future Northern Hemisphere snow-dependent water availability. National Centre of Competence in Research Climate (NCCR), Grindewald, Switzerland, 5 September 2013 (*Poster*).

13. **Mankin, J. S.**, Does climate cause conflict? Stanford Center on International Conflict and Negotiation (SCICN), Stanford, CA, 28 May 2013 (*Invited talk*).

12. **Mankin, J. S.**, M. Scherer, and N. S. Diffenbaugh, Diagnosing the inter-model spread in snow water equivalent over Central and Southwest Asia. Stanford School of Earth Sciences Review, CA, USA, 12 April 2013 (*Talk, Poster*).
11. **Mankin, J. S.**, M. Scherer, and N. S. Diffenbaugh, Diagnosing the inter-model spread in snow water equivalent over Central and Southwest Asia. Berkeley Atmospheric Science Symposium, Berkeley, CA, USA, 8 February 2013 (*Poster*).
10. **Mankin, J. S.**, M. Scherer, and N. S. Diffenbaugh, Diagnosing the inter-model spread in snow water equivalent over Central and Southwest Asia. American Geophysical Union Annual Meeting, San Francisco, CA, USA 3-7 December 2012 (*Poster*).
9. **Mankin, J. S.** and N. S. Diffenbaugh, From climate to violence: A potential mechanism in climate-conflict interactions in Afghanistan, Knowledge transfer program (KTP), University of Reading, Reading, UK, May 4, 2012 (*Invited talk*).
8. **Mankin, J. S.** and N. S. Diffenbaugh, From planting to violence: socioclimatic exposure of an Afghan poppy farm, Policy & Economic Research Roundtable (PERR), Stanford University, January 27, 2012, Stanford, CA, USA (*Invited talk*).
7. **Mankin, J. S.**, Climate change and security: making the connections, National Conference on Science, Policy and the Environment (NCSE): Environment and Security, January 18-20, Washington, DC, 2012 (*Invited talk*).
6. **Mankin, J. S.**, Security and the Environment: the case of Afghanistan, Center for International Security and Cooperation (CISAC), Hewlett Foundation, CA, USA, January 17, 2012 (*Invited panelist*).
5. **Mankin, J. S.** and N. S. Diffenbaugh, Socioclimatic exposure of an Afghan poppy farm, American Geophysical Union Annual Meeting, San Francisco, CA, USA, 3-7 December 2011 (*Poster*).
4. **Mankin, J. S.** and N.S. Diffenbaugh, Climate signals in Afghan agricultural decision-making MIT Graduate Climate Conference, Woods Hole, MA, USA, 28-30 October 2011 (*Abstract selected, unable to attend, poster*).
3. **Mankin, J. S.**, Soundly addressing corruption under the aegis of the NATO mission in Afghanistan, NATO ISAF HQ CJIATF-Shafafiyat, Kabul, Afghanistan, 30 January 2011 (*Invited talk*).
2. T. Siegfried, T. Bernauer, R. Guennet, S. Sellars, A. W. Robertson, **J. S. Mankin**, P. Bauer-Gottwein, Will Climate Change Exacerbate or Mitigate Water Stress in Central Asia? American Geophysical Union Annual Meeting, 13-17 December, 2010, San Francisco, CA, USA (*Poster*).
1. T. Siegfried, T. Bernauer, R. Guennet, S. Sellars, A. W. Robertson, **J. S. Mankin**, P. Bauer-Gottwein, Coping With International Water Conflict in Central Asia: Implications of Climate Change and Melting Ice in the Syr Darya Catchment, Climate Change and Security, The Royal Norwegian Society of Sciences and Letters. June 21, 2010, Trondheim, Norway (*Talk, not the speaker*).

OTHER  
PROFESSIONAL  
EXPERIENCE

**NATO, International Security Assistance Force (ISAF)**, Kabul, Afghanistan  
Senior Anti-Corruption Advisor

**Winter 2011**

**United States Government**, Washington, District of Columbia, USA  
Intelligence Officer

**2004-2008**

SKILLS,  
CERTIFICATIONS, &  
MISCELLANY

**Technical:** NCL, R, Unix/Linux shell, Python, Matlab, ArcGIS, ENVI, L<sup>A</sup>T<sub>E</sub>X

**Professional societies:** Member, American Geophysical Union (AGU), 2010-present, American Meteorological Society (AMS), 2012-present

**Journal referee:** Geophysical Research Letters, Journal of Geophysical Research, Earth-Science Reviews, Sustainability, Asian Perspective, African Journal of Environmental Science and Technology

**Clearance:** Top Secret/Sensitive Compartmented Information (TS/SCI) clearance, granted 2004. NATO Secret as of 2011

**Media interviews:** LA Times, Salon, China Radio International

Last updated: *October 2015*