# **CORRIE HANNAH**

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# **EDUCATION**

- 2018 **Duke University, Ph.D.** Program in Environment, Environmental Social Sciences Dissertation: When the Canals Run Dry: New Institutions and the Collective Governance of Irrigation Systems in Tajikistan.
- 2009 University of Arizona, B.A. International Studies, concentration in Science & Technology Russian & Slavic Studies *Magna Cum Laude*, Honors in International Studies

# **RESEARCH EMPLOYMENT**

- 2021- **Research Scientist**, Arizona Institutes for Resilience (AIR), USAID-funded Humanitarian Assistance & Technical Support Project (HATS), University of Arizona, Advisors: Dr. Zack Guido & Dr. Tim Finan
- 2018-2020 **Postdoctoral Research Associate**, School of Geography, Development & Environment, University of Arizona, Advisor: Dr. Tom Evans
- 2017 **Graduate Research Assistant**, Nicholas School of the Environment, Duke University, Advisor: Dr. Elizabeth Albright
- 2012 **Research Intern**, Lab of Landscape Ecology and Conservation Biology, Northern Arizona University, Advisor: Dr. Aaryn Olsson
- 2009-2010 **Research Technician**, Office of Arid Lands Studies & Coconino County Cooperative Extension, University of Arizona, Advisor: Dr. Barron Orr
- 2008-2009, NASA Space Grant Undergraduate Research Intern, Office of
- 2006-2007 Arid Lands Studies, Arizona Remote Sensing Center, Geospatial Extension, University of Arizona, Advisors: Dr. Barron Orr, Dr. Stuart Marsh

# **PUBLICATIONS**

- Accepted Guido, Z., S. Lopus, K. Waldman, C. Hannah, A. Zimmer, N. Krell, C. Knudson, L. Estes, K. Caylor, & T. Evans. Perceived Links between Climate Change and Weather Forecast Accuracy: New Barriers to Tools for Agricultural Decision-making. *Climatic Change*.
- Hannah, C., Giroux, S., Krell, N., Lopus, S. E., McCann, L. E., Zimmer, A., Caylor, K.K., & Evans, T. P. (2021). Has the vision of a gender quota rule been realized for community-based water management committees in Kenya?. World Development, 137, 105154.
- 2020 Davies, J., **Hannah, C.,** Guido, Z., Zimmer, A., McCann, L., Battersby, J., & Evans, T. (2020). Barriers to urban agriculture in Sub-Saharan Africa. *Food Policy*, 101999.
- 2020 Guido, Z., Zimmer, A., Lopus, S., **Hannah, C**., Gower, D., Waldman, K., Krell, N., Sheffield, J., Caylor, K., & Evans, T. (2020). Farmer Forecasts: Impacts of Seasonal Rainfall Expectations on Agricultural Decision-Making in Sub-Saharan Africa. *Climate Risk Management*, 100247.
- Krell, N. T., Giroux, S. A., Guido, Z., Hannah, C., Lopus, S. E., Caylor, K.
  K., & Evans, T. P. (2020). Smallholder farmers' use of mobile phone services in central Kenya. *Climate and Development*, 1-13.
- Johnson, M.F., C. Hannah, L. Acton, R. Popovici, K. K. Karanth, & E.
  Weinthal. (2014). Network environmentalism: Citizen scientists as agents for environmental advocacy. *Global Environmental Change*, 29, 235-245.

## <u>Submitted</u>

- Hannah, C., J. Davies, R. Green, A. Zimmer, P. Anderson, N. Joshi, J. Battersby, K. Baylis & T. Evans. Persistence of open-air markets in the food systems of Africa's secondary cities. *Cities.*
- N. Joshi, A. Gerlak, **C. Hannah**, S. Lopus, N. Krell, & T. Evans. Insecure Land Tenure, Informal Water Vendors and Household Water Insecurity in Nairobi's Informal Settlements. *World Development*.

## Works in progress

- Hannah, C., K. Chang, M. Falayi, M. Gerullis, F. Guerrieri, B. Ocakli, E.
  Pattenden, G. Silva Santa Rosa Macedo, A. Mohammed, H. Unnikrishnan & S. Waheed. In/formal rules for the study of the commons.
- Hannah, C., E. Baldwin, F. Guerrieri, J. Davies, A. Fluckiger, G. Silva Santa Rosa Macedo, N. -Joshi, L. McCann, A. Zimmer, Z. Guido & T. Evans. Efficacy of a 21<sup>st</sup> century water paradigm: Legal legacies shape national citizen rights to access and govern water resources in Africa.

- Davies, J., J. Blekking, **C. Hannah**, N. Joshi, A. Zimmer, P. Anderson & Tom Evans. Governance of traditional markets and rural-urban food systems in sub-Saharan Africa.
- N. Joshi, K. Ernst, C. Hannah, A. Kilungo, S. Lopus, J. Davies & T. Evans. COVID-19 lockdowns: Linkages between lockdown-induced employment disruptions, water access and hygiene practices in informal settlements of Nairobi.

#### **Peer-Reviewed Reports**

- 2018 Xenarios, S., Smakhtin, V., Sehring, J., Schmidt-Vogt, D., Tsani, S., Hannah, C., & Michalena, E. (2018). Water-Energy-Food Nexus and Environment in Central Asia. Water-Energy-Food-Ecosystems (WEFE) Nexus and Sustainable Development Goals (SDGs), 147.
- 2016 Balasubramanya, S., M. Buisson, P. Saikia, K. MacDonald, S. Aslamy, T. Horbulyk, **C. Hannah**, M. Yakubov and A. Platonov. (2016) Impact of Water Users Associations on Water and Land Productivity, Equity and Food Security in Tajikistan. Baseline Technical Report. Colombo, Sri Lanka: International Water Management Institute.

# **RESEARCH GRANTS**

2020 *"Social Capital, Food Security, and Water Supply in Nairobi's Informal Settlements"*, Sursum Fellow, Postdoctoral Research & Development Grant, University of Arizona (*\$2,000*)

2015-2017 "Resilience of agroecosystems in Tajikistan: A combined field and modeling study of water sustainability under changing socialenvironmental conditions" US Borlaug Fellows in Global Food Security Graduate Research Grant (2015-2017, \$21,090) James B. Duke International Research Travel Fellowship (2016, \$10,015) Duke Graduate School Summer Fellowship (2015, \$5,500)

2010-2011 *"A participatory and integrated assessment of agricultural development and sustainable land management in Sughd Oblast, Tajikistan"*, US Student Fulbright Fellowship, Tajikistan (*\$22,600*)

# FELLOWSHIPS, SCHOLARSHIPS & AWARDS

- 2018 Bass Instructional Teaching Assistant Fellowship, Duke University
- 2017 Graduate Award for Research & Training, Duke University
- 2016-2017 Preparing Future Faculty Fellow, Duke University
- 2013-2014 Foreign Language & Area Studies Fellowship (Chinese), Duke University
- 2007-2008 National Security Education Program David L. Boren Scholarship (Russian, Kyrgyz), American University of Central Asia, Kyrgyzstan
- 2007 Critical Languages Scholarship (Swahili), University of Arizona
- 2004-2009 Achievement Award, University of Arizona
- 2004-2009 Spirit of Discovery Scholarship, University of Arizona

# UNIVERSITY TEACHING EXPERIENCE

## Instructor, University of Arizona

Fall 2020 Introduction to Remote Sensing with Dr. Tom Evans (50 undergraduates)

## Guest Lectures

- 2021 *Guest lecturer* for Jonathan Sullivan Introduction to Remote Sensing
- 2020 *Guest lecturer* for Nupur Joshi, "'Development' in Central Asia through the lens of water resource management"
- 2020 *Guest presentation* for seminar course with Dr. Chris Scott, 'Adaptation and Resilience in Water Resource Systems'. University of Arizona.
- 2019 *Guest lecturer* for Dr. Zack Guido on "Food Security & Climate Change". University of Arizona.

# Graduate Teaching Assistant, Duke University

Spring 2018 Integrating Environmental Science & Policy (80 undergraduates)

## - Bass Instructional Teaching Assistant Fellowship

- Led course design with Dr. Chantal Reid & Dr. Charlotte Clark
- Developed & facilitated "Food Security" module
- Supervised five TAs
- '14,'16,'17 Applied Data Analysis for Environmental Science (40-60 graduates)Supervised two TAs (2017)
  - Contributed to course content
- Spring 2015 Introduction to Environmental Science & Policy (100 undergraduates)
- Spring 2013 Introduction to Environmental Modeling (20 graduates)
- Fall 2012 Population Ecology for a Changing Planet (15 graduates)

# SELECTED LEADERSHIP & SERVICE

## Profession

2021	Journal Reviewer: Climate & Development, Journal of Water Sanitation & Hygiene
	Other Reviews: UArizona-CNRS Joint Graduate Fellowship Program, Making Action Possible for Southern Arizona – "Housing Insecurity in Tucson and Beyond: A Case Study of Manufactured Housing"
2020-present	Early Career Network (ECN), International Association for the Study of the Commons (IASC)
	University
2019-2020	Africa Network, developed a network of Africa-focused scholars on campus with the initiation of a monthly Africa Table Speaker Series each academic semester, University of Arizona
2016-2017	Graduate & Professional Student Council Representative (GPSC), Duke University Academic Programs Committee (advisory board to the Provost on approval of academic units and university-wide academic issues)
2008-2009	Peer Intern Advisor, University of Arizona NASA Space Grant Consortium Undergraduate Research Internship Program
	Academic Unit
2020-present	JEDI Committee, Arizona Institutes for Resilience
2017-2018	Undergraduate syllabus development & program assessment for the Nicholas School of the Environment for core curriculum courses: Integrating Environmental Science & Policy and Senior Capstone.
2016-2017	PhD Program Representative (elected), GPSC, Duke University
2016-2017	GPSC Representative, Career Resources Initiative, Nicholas PhD Advisory Council
PUBLIC COMMUNICATION & OUTREACH	
	Invited Talks
2020	"Decentralization of water governance in Africa." Africa Network.
	University of Arizona.
2017	"Land degradation patterns as a result of declining irrigation
	infrastructure maintenance in southwestern Tajikistan". Student
	Association for Geospatial Analysis, Duke University.

- 2016 "Transboundary Water Resource Management in Central Asia". Transboundary Water Resources Working Group, Duke University.
- 2014 Facilitator, Environment Club, American Corner in Khujand, Tajikistan.

- 2012 "A US Student Fulbright Fellow in Tajikistan: Cultural experiences and research on sustainable land management". University of Arizona NASA Space Grant Consortium Brown Bag Seminar.
- 2010 "Youth Perceptions of Alcohol Accessibility in Flagstaff, Arizona". Flagstaff Citizens Against Substance Abuse & Coconino County Alliance Against Drugs.

## 2008-2010, University of Arizona Cooperative Extension

2006-2007 - Conducted trainings and developed educational materials for the use of geospatial technologies (i.e., GIS, collaborative mapping, community asset mapping) for adults, youth, and youth program leaders to support community-driven research

- In 2009-10, trained ~620 participants in Arizona over 140 training hours

- Tuba City Youth Environmental Camp (2010)

- Natural Resource Conservation Workshop for Arizona Youth (2009-10)

# **INTERNATIONAL EXPERIENCE**

## **Research & Fieldwork**

- 2020-2021 Zambia & Kenya (July 2020-2021) Remote data collection via phone call surveys with urban households & open-air market committee leaders
- 2019 Kenya (January-February 2019, July-August 2019): focus groups and interviews with multiple stakeholders, household surveys in rural and urban settings
- 2010-2016 Tajikistan (2010-2011, summer 2014, 2015-2016): fieldwork involving multi-stakeholder interviews, focus groups, and surveys associated with Fulbright Fellowship and dissertation research
- 2014 Italy (November 2014): World Atlas of Desertification editorial meeting
- 2013 China (summer 2013): preliminary fieldwork along the Loess Plateau
- 2012 Nicaragua (summer 2012): ground truth data collection for land cover analysis to identify wildlife corridors for biodiversity conservation

## Education

Languages: Russia (summer 2007), Kyrgyzstan (2007-2008), Spain (2011) Permaculture/small-scale agriculture course: Bulgaria (2011)

## Volunteer

Tanzania – HIV/AIDS Education (fall 2005, summer 2006)

## Foreign Language Training

Russian (advanced – 4+ years formal study & 3+ years in country) Swahili (intermediate – 2+ years formal study & several months in county) Persian, Kyrgyz, Uzbek, Chinese (novice – 1+ year formal study, 2+ months experience in country