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## EDUCATION

2015 – Present

**University of British Columbia, PhD Candidate Resource Management and Environmental Studies**

Advisor: Dr. Navin Ramankutty; Committee Members: Dr. Hannah Wittman, Dr. Milind Kandlikar

Funded through: University of British Columbia 4 Year Doctoral Fellowship & Social Sciences and Humanities Research Council (SSHRC) Insight Grant (#435-2016-0154)

2012 – 2014

**Pennsylvania State University, MSc in Geography**

Advisor: Dr. Petra Tschakert; Committee Members: Dr. Karl Zimmerer, Dr. Thomas Gill, Dr. Doug Miller

Funded through: National Science Foundation, Coupled Natural-Human Systems Program (CNH#0909447)

2005 – 2009

**Kalamazoo College, BA in Psychology** (Coursework included Environmental & Development Studies)

Advisor: Dr. Robert Grossman

2007 – 2008

**International Sustainable Development Institute, Thailand**

Field research program: Coursework included biodiversity assessments & participatory rural appraisal

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## TECHNICAL & LANGUAGE SKILLS

**Computer Packages:** ArcGIS, Bash, ENVI, Excel (adv.), GeoDa, Matlab, Python, QGIS, R, SPSS, UCINET

**Technical:** Data Harmonization, Geographic Information Systems (GIS), Monitoring and Evaluation, Network Analysis, Program Assessment, Remote Sensing, Resource Surveying (biodiversity surveys, seed germination lab and field trials), Spatial Analysis, Statistical Analysis, Survey Design

**Languages:** Thai (Proficient), Khmer (Beginner), Spanish (Beginner)

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## INTERNATIONAL RESEARCH

2018 – Present

**CGIAR Platform for Big Data & University of British Columbia, Smallholder Food Security, Global**

**Research Associate:** *Project Title: 'A Global baseline for data-driven agronomy interventions'* • Assisted in generating a baseline for how many farmers have access to phones and internet, and the relative costs for engaging in digital technology for different farming populations across the planet • Created global farm size map from global agricultural land and field size datasets

2015 – Present

**Dissertation project, University of British Columbia, Smallholder Food Security, Global & India**

**Principal Investigator:** *Project Title: 'What do we know about farm size, production, and climate impacts on*

*the global level?*’ • Harmonized a global dataset of crop production by farm size to monitor Sustainable Development Goal 2.3 • Conducted a systematic review and meta-analysis of empirical evidence on multiple socio-ecological outcomes of farm size • Examined spatial and temporal relationships between farm size, reliable yields, and farmer food security during and after extreme weather events across 40 years in India • Collaborated with the FAO to write a policy brief on how SDG 2.3 can be monitored using country relevant legal definitions of smallholders

2015 – Present

**SSHRC Insight Grant, University of British Columbia, Farm size & Sustainability, Global, India, & Brazil**

**Research Assistant:** *Project Title:* ‘The role of small farms in global food security and sustainability’ • Global data harmonization • Spatial and temporal analysis of climate, census, and household surveys in India and Brazil • Spatial analysis of global cell phone data access and coverage for smallholders

2014 – 2015

**iDE (Formerly International Development Enterprise), Innovation Diffusion, Cambodia & Vietnam**

**GIS, Monitoring and Evaluation Consultant:** Conducted spatial analysis for WASH, Farm Business Advisor, and Micro-Irrigation projects’ supply chain distribution efforts • Conducted resource conservation and poverty alleviation impact assessments for Micro-Irrigation Technology project • Incorporated GIS analysis into global impact assessments • Taught local staff QGIS mapping and R statistical software • Facilitated interactions with government ministries to obtain key datasets

2014 – 2015

**ECHO Asia Impact Center, Biodiversity & Food Access, Cambodia**

**Lead Field Researcher: Crop Biodiversity Management:** *Project Title:* ‘Seeds of Hope: Connecting Seeds, Livelihoods, and Poverty Alleviation with Marginalized Smallholder Farmers’ • Lead data collection and analysis for rapid rural appraisal market assessments and community-based neglected and underutilized species identification • Managed Cambodian and US field staff

2014

**Clinton Health Access Initiative (CHAI), Disease Monitoring, Cambodia**

**GIS Monitoring Consultant:** Created malaria incidence maps over time to bolster regional planning

2012 – 2014

**USAID Grant, Pennsylvania State University, Value Chains & Nutrition, Ghana**

**Research Associate:** *Project Title:* ‘Sustainable Technologies for Orange and Purple Sweet Potato (STOPS)’ • Conducted geospatial value chain analysis on sweet potatoes to identify possible public and private interventions in addressing Vitamin A Deficiency • Responsible for: survey design, mixed-methods data collection, and analysis • Worked with local government research unit for project implementation

2012 – 2014

**USAID Subcontract, InnovATE Project, Agricultural Capacity, Cambodia**

**Research Associate:** *Project Title:* ‘Innovation for Agricultural Training and Education (InnovATE)’, Cambodia • Worked with ministries, public, and private sector stakeholders • Performed human capital needs assessment of agriculture training and education (TVET) • Conducted SWOT analysis

2012 – 2014

**NSF CNH, ReBuild Project, Disease & Land-Use Change, Ghana**

**Research Assistant:** *Project Title:* ‘Climatic Extremes, Mining, and Mycobacterium Ulcerans: A Coupled Systems Perspective. Research and Education on Buruli Ulcer, Inundations and Land Disturbance (ReBuild)’ • Responsible for longitudinal mixed-method data collection and management • Quantified qualitative data

for socio-ecological systems modeling • Interacted with Ghanaian and US schools to disseminate research findings • Documented project activities for funder reports • Worked with health clinics to monitor disease

2012 – 2014

**MSc Thesis Project, Innovation Diffusion & Food Access, Ghana**

**Principal Investigator:** *Project Title:* 'Effects of modern crop introduction on informal seed systems in Northern Ghana: a social network approach' • Developed, secured funding, and implemented project • Designed quantitative and qualitative surveys • Recruited and managed local enumerator team • Conducted social network and regression analyses • Partnered with the Savannah Agricultural Research Institute (SARI), a national agricultural research center

2010 – 2011

**ECHO Asia Impact Center, USAID Grant, Biodiversity & Food Access, Thailand & Cambodia**

**Lead Field Researcher:** *Project Title:* 'Strengthening Indigenous Informal Seed Systems Among the Upland Indigenous People of Northern Thailand and Lowland Cambodia' • Lead participatory data collection and plant germplasm vigor/germination trials, management and analysis • Developed, demonstrated, and implemented farmer training materials on solar powered crop seed germination and vigor testing stations • Organized regional seed exchange fairs with ministry officials • Managed Thai and Cambodian field staff

**US-BASED RESEARCH**

2011

**Harvard University, Cambridge, MA**

**Horticultural Intern:** Arnold Arboretum

2006

**Massachusetts Institute of Technology, Cambridge, MA**

**Research Assistant:** Gabrieli Cognitive and Affective Neuroscience Laboratory

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**PUBLICATIONS**

**Articles in Prep**

1. **Ricciardi, V.**, Ramankutty, N., Mehrabi, Z., Noack, F., Sidhu, B. 2019. Are smallholders prepared for climate change? An assessment in India from 1966-2010 on the relationship of farm size, incomes, and micro-nutrient production amidst climate shocks.
2. **Ricciardi, V.**, Ramankutty, N., Mehrabi, Z., Wittman, H., James, D. 2018. Farm size, food security, and sustainability: A meta-analysis of empirical relationships in crop production systems.
3. Mehrabi, Z., **Ricciardi, V.**, McDowell, M., Ramankutty, N., 2018. Do the most vulnerable have access to internet and phones? A Global baseline for data-driven agronomy interventions.

**Articles in Refereed Journals**

1. McDowell, G., Huggle, C., Frey, H., Wang, F., **Ricciardi, V.**, Cramer, K. 2018. Adaptation action and research in glaciated mountain systems: Are they enough to meet the challenge of climate change? Global Environmental Change. In Press.

2. **Ricciardi, V.**, Ramankutty, N., Mehrabi, Z., Jarvis, L., Chookolingo, B., 2018. How much of our world's food do smallholders produce? *Global Food Security*, 17: 64-72.
3. **Ricciardi, V.**, Ramankutty, N., Mehrabi, Z., Jarvis, L., Chookolingo, B., 2018. An open-access dataset of crop production by farm size from agricultural censuses and surveys. *Data in Brief*, 19: 1970-1988.
4. Cohn, A., Newton, P., Gil, J., Kuhl, L., Samberg, L., **Ricciardi, V.**, Manly, J. R., and Northrop, S. 2017. Smallholder Agriculture and Climate Change. *Annual Review of Environment and Resources*, 42(1).
5. Glenna, L., Borlu, Y., Gill, T., Larson, J., **Ricciardi, V.** and Adam, R., 2017. Food security, sweet potato production, and proximity to markets in northern Ghana. *FACETS*, 2(2), pp.919-936.
6. Gill, T. B., **Ricciardi, V.**, Bates, R., James, D. 2017. Capacity Development in Agricultural Education and training in Cambodia: A SWOT Analysis. *The Journal of Agricultural Education and Extension*, 24(1): 34-51.
7. Tschakert, P., **Ricciardi, V.**, Machado, M., Ferring, D., Smithwick, E. Hausermann, H., and Parker, E. 2016. Situated Knowledge of Pathogenic Landscapes in Ghana: Understanding the Emergence of Buruli ulcer through Qualitative Analysis. *Social Science and Medicine*, (150): 170-171.
8. **Ricciardi, V.** 2015. Homophily as a Safety Net: Investigating When Smallholder Farmers Decide to Buy Hybrid Seed in Northern Ghana. *IK: Other Ways of Knowing*. 1(2): 65-97.
9. **Ricciardi, V.** 2015. Social seed networks: identifying central farmers for equitable seed access. *Agricultural Systems* 139: 110-121.
10. Wu, J., Tschakert, P., Klutse, E., Ferring, D., **Ricciardi, V.**, Hausermann, H., Oppong, J., Smithwick, E. A. 2015. Buruli Ulcer Disease and Its Association with Land Cover in Southwestern Ghana. *PLoS Neglected Tropical Diseases*, 9(6), e0003840.
11. Gill, T. B., Bates, R., Bicksler, A., Burnette, R., **Ricciardi, V.**, Yoder, L. 2013. Strengthening Informal Seed Systems to Enhance Food Security in Southeast Asia. *Journal of Agriculture, Food Systems, and Community Development* 3(3): 139-153.
12. Bates, R., Gill, T. B., Bicksler, A., Yoder, L., Burnette, R., and **Ricciardi, V.** 2013. Designing Strategies and Systems to Identify, Preserve and Promote Underutilized Indigenous Crop Species. *Acta Horticulturae*. 979: 569-576.
13. Bicksler, A., Bates, R., Burnette, R., Gill, T. B., Yoder, L., **Ricciardi, V.** and Srigiofun, Y. 2012. Methodologies for strengthening informal indigenous vegetable seed systems in Northern Thailand and Cambodia. *Acta Horticulturae* 958: 67-74.

#### **Non-Refereed Publications and Reports to Sponsors**

1. **Ricciardi, V.** 2015. Project Documentation Report: Scaling-Up Productive Water Through Micro-Irrigation Technologies. iDE Vietnam. Project supported by the Swiss Agency for Development & Cooperation (SDC).
2. **Ricciardi, V.** 2015. Latrine Business Owners to Customer Sales Network in Rural Cambodia: 2012-2014; Supply Chain Management Geographical Atlas. iDE Sanitation Marketing Scale-Up (SMSU) 2.0. Project supported by the World Bank's Water and Sanitation Program (WSP).

3. **Ricciardi, V.** 2015. Toilet Sales and Access to Sanitation in Rural Cambodia; Geographical Atlas. iDE Sanitation Marketing Scale-Up (SMSU) 1.0. Project supported by the World Bank's Water and Sanitation Program (WSP).
4. **Ricciardi, V., R. Bates, T. Gill.** 2014. *Report for InnovATE scoping visit, Cambodia*. USAID Subcontract report. InnovATE in Cambodia.
5. **Ricciardi, V., Borlu, Y., Gill, T.** 2014. Fact-sheet: *Sweet potato seed system in northern Ghana*. USAID Horticultural CRISP report. Sustainable Technology for Orange and Purple Sweet potato (STOPS) in Ghana.
6. Borlu, Y., **Ricciardi, V.** 2014. Fact-sheet: *Perceptions and attitudes towards sweet potatoes in northern Ghana*. USAID Horticultural CRSP report. Sustainable Technology for Orange and Purple Sweet potato (STOPS) in Ghana.
7. Meitzner Yoder, L. and **Ricciardi, V.** January 2012. *Seed fairs: Fostering local seed exchange to support regional biodiversity*. Echo Asia Notes.
8. Bicksler, A., Burnette, R., **Ricciardi, V.** Bell, M., Shapland, P. 2011. *Seed germination cabinet*. USAID Horticultural CRSP fact sheet. Strengthening Indigenous Informal Seed Systems in Southeast Asia.

#### CONFERENCE PRESENTATIONS

1. **Ricciardi, V., Ramankutty, N., Mehrabi, Z., Wittman, H., James, D.** 2018. Systematic Review: Transition in Global Farm Size. SESYNC Boundary Spanning Symposium. Annapolis, MD, USA.
2. **Ricciardi, V., Ramankutty, N., Mehrabi, Z., Jarvis, L., Chookolingo, B.** 2017. How much of our world's food do smallholders produce? Third International Conference on Global Food Security. Cape Town, South Africa.
3. **Ricciardi, V., Ramankutty, N.** 2016. Yield stability and farm size: Investigating 40 years of variability in India's rice production. Global Land Project. Beijing, China.
4. **Ricciardi, V.** 2016. Commentator. Workshop on Innovation, Precaution, and Sustainability. W. Maurice Young Centre for Applied Ethics: University of British Columbia. Vancouver, BC, Canada.
5. **Ricciardi, V.** 2016. Chair of Paper Session: Climate and Agriculture - Physical Geography. Association of American Geographers Annual Conference. San Francisco, CA, USA.
6. **Ricciardi, V.** 2016. Is crop production of India's small farms more stable than large farms in response to climate variability? Paper Session: Climate and Agriculture - Physical Geography. Association of American Geographers Annual Conference. San Francisco, CA, USA.
7. Larson, J., Gill, T., Borlu, Y., **Ricciardi, V., Martey, E.** 2014. "STOPS: Sustainable Technologies for Orange and Purple Sweet Potatoes in Ghana." Annual USAID Innovation Lab Meeting. Tegucigalpa, Honduras.
8. **Ricciardi, V.** 2014. "Effects of crop introduction on informal seed systems in Northern Ghana: a social network approach." Paper session: Culture, Agriculture and Tradition I: Species, Diversity and Local Knowledge. Association of American Geographers Annual Conference. Tampa, Florida, USA.
9. **Ricciardi, V.** 2014. "Effects of commercial crop introduction on informal seed systems: Northern Ghana." Inter-institutional Consortium of Indigenous Knowledge. State College, PA, USA.

10. **Ricciardi, V.** 2013. "Agrobiodiversity conservation and food security in West Africa: Can we have both?" International Agricultural Speaker Series, Pennsylvania State University. State College, PA, USA.
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#### **TEACHING EXPERIENCE / GUEST LECTURES**

- 2018 **American University Washington College of Law, Washington, DC.**  
**Panel Discussant:** How to bridge law and science to assess the social, environmental, and economic tradeoffs for a right to food?
- 2018 **Food and Agricultural Organization Regional Office for Latin America and the Caribbean, Santiago, Chile**  
**Guest Lecturer:** How much of the world's food do smallholders produce?
- 2016 **World Resource Institute, Washington, DC.**  
**Guest Lecturer:** Applying social network analysis to development: A primer
- 2016 **University of British Columbia, Vancouver, BC, Canada**  
**Teaching Assistant:** Analytic Methods in Sustainability Science (ENVR 440)
- 2015 **American University of Phnom Penh, Cambodia**  
**Guest Lecturer:** GIS Technical Workshop
- 2015 **iDE (International Development Enterprise), Phnom Penh, Cambodia**  
**Guest Lecturer:** GIS Technical Workshop
- 2012 – 2014 **Pennsylvania State University, State College, PA**  
**Guest Lecturer:** Think Geographically (GEOG 301); Strengthening Seed Systems (INTAG 300)  
**Teaching Assistant:** Human/Environment Geography (GEOG 30)
- 2010 – 2011 **ECHO Asia Impact Center, Chiang Mai, Thailand**  
**Guest Lecturer:** Small-Scale Biofuel Production in Southeast Asia
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#### **AWARDS**

- 2017: Public Scholar Initiative Research Fellow, University of British Columbia
- 2016: Liu Doctoral Scholar, Liu Institute for Global Issues
- 2015: Four Year Doctoral Fellowship (4YF), University of British Columbia
- 2014: ReBuild's Top Research Assistant Award, Pennsylvania State University (NSF CNH Grant)
- 2013: Marjorie Whiting Endowment Research Grant, Inter-institutional Consortium for Indigenous Knowledge (ICIK)
- 2013: Research Grant, Africana Research Center (ARC)
- 2009: Senior Leadership Recognition Award, Kalamazoo College
- 2007: Star Award Recipient of the Sharing Time and Resources (STAR) Award, Kalamazoo Michigan City Council
- 2006: LaPlante Scholar for leadership in civic engagement, Kalamazoo College