

# Bhuwan Thapa

Department of Geography and Planning  
Appalachian State University  
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## EDUCATION

**PhD** 2018 Geography, University of Arizona, Tucson, Arizona  
**GC** 2021 Graduate Certificate (GC), Data Science & Analytics, Univ. of Missouri, Columbia  
**MPP** 2009 Public Policy, University of Maryland College Park, Maryland  
**BSc** 2006 Environmental Science, McNeese State University, Lake Charles, Louisiana  
**BSc** 2003 Environmental Science, St. Xavier's College, Kathmandu, Nepal

## EXPERTISE

Climate change adaptation, urban resilience, nature-based solutions, geospatial analysis, food system, agroforestry, water resources management.

## APPOINTMENTS

2022 - current **Assistant Professor**, Department of Geography and Planning, Appalachian State University, US  
2020 - 2022 **Postdoctoral Fellow**, Center for Agroforestry, University of Missouri, US  
2018 - 2020 **Postdoctoral Fellow**, Department of Geography, Indiana University - Purdue University Indianapolis, US  
2015 - 2018 **Ph.D. Fellow**, International Centre for Integrated Mountain Development, Nepal  
2013 - 2018 **Graduate Research Associate**, School of Geography and Development & Udall Center for Studies in Public Policy, University of Arizona, US  
2012 - 2013 **Environmental Specialist**, Danish Hydraulic Institute, Nepal Office  
2011 - 2012 **River Environment Management Consultant**, Japan Water Agency, Japan  
2008 - 2009 **Graduate Research Assistant**, National Center for Smart Growth, University of Maryland, US  
2007 - 2008 **Graduate Research Assistant**, Center for Integrative Environment Research, University of Maryland, US  
2006 - 2007 **Environmental Analyst**, A4 Scientific Inc., US

## PUBLICATIONS (\* indicates student publication)

### Manuscripts

1. Miller, T.\*, Schroeder, K., **Thapa, B.**, & Shay, E. (2024). Barriers to access to local produce in an early childhood setting in rural Appalachia. *Journal of Agriculture, Food Systems, and Community Development*, 14(1), 1-15.
2. Schado, T.\*, Shay, E., **Thapa, B.**, & Combs, T. S. (2024). Preparing for Connected and Automated Vehicles: Insights from North Carolina Transportation Professionals. *Sustainability*, 16(20), 8747. <https://doi.org/10.3390/su16208747>
3. Ryan, S. C.\*, Sugg, M. M., Runkle, J. D., & **Thapa, B.** (2024). Advancing understanding on greenspace and mental health in young people. *GeoHealth*, 8(3), e2023GH000959. <https://doi.org/10.1029/2023GH000959>

4. Terasaki Hart, D. E., Yeo, S., Almaraz, M., Beillouin, D., Cardinael, R., Garcia, E., ... **Thapa, B.**, Wood, S., & Cook-Patton, S. C. (2023). Priority science can accelerate agroforestry as a natural climate solution. *Nature Climate Change*, 13(11), 1179-1190. <https://doi.org/10.1038/s41558-023-01810-5>
5. **Thapa, B.**, Lovell, S., & Wilson, J. (2023). Remote sensing and machine learning applications for aboveground biomass estimation in agroforestry systems: a review. *Agroforestry Systems*, 1-15. <https://doi.org/10.1007/s10457-023-00850-2>
6. **Thapa, B.**, Lovell, S., Revord, R., Owens, P., Gold, M., & Meier, N. (2023). Significant opportunities for tree crop expansion on marginal lands in the Midwest, USA. *Journal of Sustainable Agriculture and Environment*. <https://doi.org/10.1002/sae2.12080>
7. Kronenberg, R., Lovell, S., **Thapa, B.**, Spinka, C., Valdivia, C., Gold, M., & Bardhan, S. (2023). Survey of Missouri Landowners to Explore the Potential of Woody Perennials to Integrate Conservation and Production. *Land*, 12(10), 1911. <https://doi.org/10.3390/land12101911>
8. Reynolds, H.L., Mincey, S., Montoya, R. D., Hamlin, S., Sullivan, A., **Thapa, B.**, Wilson, J., Rosing, H., Jarzen, J., & Grove, M. (2021). Green infrastructure for urban resilience: a trait-based framework. *Frontiers in Ecology and the Environment*. 1540-9295, <https://doi.org/10.1080/17565529.2020.1840962>
9. **Thapa, B.**, Banerjee, A., Wilson, J., & Hamlin, S. (2021). Strategic placement of urban agriculture: A spatial optimization approach. *Urban Agriculture & Regional Food Systems*, 6(1). <https://doi.org/10.1002/uar2.20019>
10. **Thapa, B.**, & Rahman, T. (2021). Multi-level determinants of crop choice to water stress in smallholder irrigation system of Central Nepal. *Climate and Development*, 13:7, 581-592. <https://doi.org/10.1080/17565529.2020.1840962>
11. **Thapa, B.**, & Scott, C. A. (2019). Institutional Strategies for Adaptation to Water Stress in Farmer-Managed Irrigation Systems of Nepal. *International Journal of the Commons*, 13(2), 892–908. <https://doi.org/10.5334/ijc.901>
12. Merrey, D. J., Hussain, A., Tamang, D. D., **Thapa, B.**, & Prakash, A. (2018). Evolving high altitude livelihoods and climate change: A study from Rasuwa District, Nepal. *Food Security*, 10(4), 1055–1071. <https://doi.org/10.1007/s12571-018-0827-y>
13. Scott, C. A., Albrecht, T. R., De Grenade, R., Zuniga-Teran, A., Varady, R. G., & **Thapa, B.** (2018). Water security and the pursuit of food, energy, and earth systems resilience. *Water International*, 43(8), 1055–1074. <https://doi.org/10.1080/02508060.2018.1534564> **[International Best Paper for 2018]**
14. Mills-Novoa, M., Borgias, S. L., Crootof, A., **Thapa, B.**, de Grenade, R., & Scott, C. A. (2017). Bringing the hydrosocial cycle into climate change adaptation planning: lessons from two Andean Mountain water towers. *Annals of the American Association of Geographers*, 107(2), 393–402. <https://doi.org/10.1080/24694452.2016.1232618>

15. Vij, S., Moors, E., Ahmad, B., Md. Arfanuzzaman, Bhadwal, S., Biesbroek, R., Gioli, G., Groot, A., Mallick, D., Regmi, B., Saeed, B. A., Ishaq, S., **Thapa, B.**, Werners, S. E., & Wester, P. (2017). Climate adaptation approaches and key policy characteristics: Cases from South Asia. *Environmental Science & Policy*, 78, 58–65.  
<https://doi.org/10.1016/j.envsci.2017.09.007>
16. **Thapa, B.**, Scott, C., Wester, P., & Varady, R. (2016). Towards characterizing the adaptive capacity of farmer-managed irrigation systems: Learnings from Nepal. *Current Opinion in Environmental Sustainability*, 21, 37–44.  
<https://doi.org/10.1016/j.cosust.2016.10.005>
17. de Grenade, R., House-Peters, L., Scott, C., **Thapa, B.**, Mills-Novoa, M., Gerlak, A., & Verbist, K. (2016). The nexus: Reconsidering environmental security and adaptive capacity. *Current Opinion in Environmental Sustainability*, 21, 15–21.  
<https://doi.org/10.1016/j.cosust.2016.10.009>
18. Scott, C., & **Thapa, B.** (2015). Environmental security. In Ellen Wohl (ed.) *Oxford Bibliographies in Environmental Science*. Oxford University Press, New York. doi: 10.1093/OBO/9780199363445-0012

#### Book Chapters

19. Ogwu, M., Ro, B., **Thapa, B.** (2024). Eco-friendly methods for combating air pollution. In Ogwu, M & Izah, S. (Eds.), *Sustainable strategies for air pollution mitigation: Development, economics and technologies*. Springer Nature.
20. Scott, C.A., Crootof, A., **Thapa, B.**, & Shrestha, R.K. (2016). The water-food-energy nexus in the Ganges Basin: Challenges and opportunities. In L. Bharati, B.R. Sharma, V. Smakhtin (eds.), *The Ganges River Basin: Status and Challenges in Water, Environment and Livelihoods*, Routledge, London, pp. 138-153.

#### Under Review

1. Merritt, E. \*, Retchless, D., **Thapa, B.**, Sugg, J. Using interactive maps to reveal the content of second-order climate change beliefs. *Cartographic Perspectives*. (accepted)
2. Bird, J.\*, **Thapa, B.**, Carpenter, B.\*, Ro, B., Quattro, C., Poupart, S\*. Mountain city preparedness for climate change: sustainability-related initiatives in Appalachian Region, USA. *Journal of Environmental Planning and Management*.

#### Policy & Other Documents

1. **Thapa, B.** (2016). *Roundtable Proceedings on “Farmer-managed irrigation systems at a Crossroads – Mapping climate and socio-ecological challenges*. International Centre for Integrated Mountain Development, Kathmandu, Nepal.  
<http://lib.icimod.org/record/32240/files/hiawareIRFMIS.pdf>
2. Shrestha, A., Sherchan, S. Vij, S. Dandekhya, S. M. Sen, ..., **Thapa, B.**,... A. Pandey. (2016). *Conference proceedings of the Climate change Adaptation Policy and Science Conference, New Delhi, India*. The International Centre for Integrated Mountain Development, Kathmandu, Nepal, 24-25 February.  
<http://lib.icimod.org/record/31952/files/HiAware-InternalReport16.pdf>

3. **Thapa, B.**, Scott, C.A., Varady, R.G., de Grenade, R. (2015). *Strengthening water security through research and science- policy dialogues*. International Water Resources Association Newsletter. [http://iwra.org/doc/IWRA\\_Newsletter\\_March2015.pdf](http://iwra.org/doc/IWRA_Newsletter_March2015.pdf)
4. **Thapa, B.**, Varady, R., Scott, C.A. (2013). *Measuring Water Security: An Assessment of the 2013 Asian Development Bank Outlook National Water Security Index*. Environmental Scientist. 3.23. [https://www.the-ies.org/sites/default/files/journals/water\\_security\\_oct\\_14.pdf](https://www.the-ies.org/sites/default/files/journals/water_security_oct_14.pdf)

## GRANTS AND FELLOWSHIPS

### External

Foundation for Food & Agricultural Research, *Mapping trees in future climates: Integrating knowledge, data, and tools to enhance agroforestry adoption for climate resilience*. PI: Monika Shea, Co-PI: Trent Ford, **Bhuwan Thapa**, Kevin Wolz. \$22,972 (2023-2025).

United States Department of Agriculture National Institute of Food and Agriculture (NIFA), *Agroforestry for climate risk management: effectiveness of windbreaks in reducing crop loss in Midwest, USA*. PI: Benjamin Knapp, Co-PI: **Bhuwan Thapa**, Tozammel Hossain, Zhen Cai, Pat Guinan. \$116,812 (2022-2024).

### Internal

QEP Engagement Grant, *Assessing the role of air pollution and weather conditions for bikers and pedestrians in Boone*. Quality Enhancement Plan, Appalachian State University. PI: **Bhuwan Thapa**, Co-PI: Erik Rabinowitz, \$3,013 (2025).

HIRSA Award, *Air pollution exposure and health impacts among rural cyclists and e-bike users: A study in the Appalachian Region*. Appalachian Institute for Health & Wellness, Appalachian State University. PI: **Bhuwan Thapa**, Co-PI: Erik Rabinowitz & Jennifer S. Tyson, \$6,993 (2024-2025).

CONCERT Boost Grant, *Renewable energy to power environmental sensors network to monitor air pollution exposure and health impacts among rural cyclists and e-bike users in Appalachia Region*. Research Institute for Environment, Energy, & Economics, Appalachian State University. PI: **Bhuwan Thapa**, co-PI: Erik Rabinowitz, Jennifer Schroeder Tyson, Ram Poudel, Brian Raichle, \$7,772 (2024-2025).

GRAM Award, *Assessing green vegetation equity in the mountain cities of Appalachia, USA, and the Himalayas, Nepal*. Graduate Research Assistant Mentoring Program, Cratis D. Williams School of Graduate Studies, Appalachian State University. PI: **Bhuwan Thapa**, \$14,000 (2024-2025).

Undergraduate Research Assistantship Award, *Literature Review of climate resilience of mountain cities in Appalachia, USA and the Himalayas, Nepal*. Office of Student Research, Appalachian State University, \$1,200 (Summer 2024).

Travel Award, *Nature-based solutions for climate resilience in Himalaya and Appalachia*. Office of International Education and Development, Appalachian State University, \$500 (2024).

VIP Award, *Urban microclimate and land cover analysis of Seoul, Korea*. Virtual International Programs, Office of International Education and Development, Appalachian State University, \$1,000 (2024-2025).

VIP Award, *International Environmental Planning and Policy*. Virtual International Programs, Office of International Education and Development, Appalachian State University, \$1,000 (2022-2023).

Service-Learning Assistantship, *Community-engaged research on mapping and analysis of urban agriculture in Indianapolis, IN*. Center for Service & Learning, Indiana University – Purdue University Indianapolis, PI: **Bhuwan Thapa**, Co-PI: Jeffrey Wilson & Rick Bein, \$9,000 (2018-2019).

Research Grant, *Implications of industrial copper mining on water security to global change in Arizona, US*. Institute of Ecology and Environment and French National Center for Scientific Research, University of Arizona, PI: **Bhuwan Thapa**, \$6,000 (2017-2018).

PhD Fellowship, *Adaptation to global change in farmer-managed irrigation systems of the Gandaki Basin in Nepal*. HI-AWARE Program, International Centre for Integrated Mountain Development, Kathmandu, Nepal, \$104,803 (2015-2018).

CLIMAS Fellowship, *Use-inspired research on adaptation strategies of farmer-managed irrigation systems in Gandaki Basin, Nepal*, Climate Assessment for the Southwest, University of Arizona, \$5,000 (2015-2016).

Graduate & Professional Student Council Travel Grants, University of Arizona. \$680 (2018).

### **Grants Under Review**

Department of Energy, *Renewable Energy Siting through Technical Engagement and Planning (R-STEP) Technical Assistance Provider Proposal Narrative*. PI: Ram Poudel, co-PI: Brian Raichle, **Bhuwan Thapa**, \$45,000 (2025-2026).

### **Grants Under Preparation**

Department of Energy, *Nature-based solution for flood resilience in Western North Carolina*. PI: **Bhuwan Thapa**, co-PI: Steve Seagle, Tammy Kowalczyk, Tatyana Ruseva, Derek Martin. \$100,000 (2025-2028).

### **Unfunded Grants**

Department of Energy, *Hazards risk mapping to promote long-term planning for a diverse energy production portfolio*. PI: Stephanie Pilkington (UNC Charlotte), co-PI: Ram Poudel, **Bhuwan Thapa**. \$15,732 (2025-2027).

National Science Foundation Smart and Connected Communities, *Zoning simulation to support housing development and transportation CO2 emission reduction in mountain communities*. PI: **Bhuwan Thapa**, Co-PI: Christine Quattro, Elizabeth Shay, Tinghao Feng. \$149,988 (2025).

Department of Energy, Climate Resilience Center, *Ecosystem services in the Southern Appalachian Region: resiliency and sustainability in a changing climate*. PI: Steve Seagle, co-PI: Tammy Kowalcayk, Tatyana Ruseva, **Bhuvan Thapa**. \$33,356 (2024-2027).

USDA Forest Service Research & Development, *Economic drivers and environmental resilience: wood products and wildfire occurrence*. PI: Zhen Cai, Co-PI: Consuelo Brandeis, Richard Bergman, **Bhuvan Thapa**. \$87,165 (2024-2025).

National Science Foundation, *Enhancing computational pathways in undergraduate environmental majors*. PI: L. Doner, Co-PI: **Bhuvan Thapa**, Katherine Meierdiercks, Rita Kuo, Russell G. Kofmann. \$99,540 (2022-2027).

## PROFESSIONAL PRESENTATIONS

### Invited Talks (External)

- 2024 “Waterfront and climate change adaptation in cities”. 2024 Water Seoul International Conference, Seoul Metropolitan Government. Seoul, Korea. September 6.
- 2023 “Addressing climate change – strategies and policies”. Department of Economics, Sri Sathya Sai Institute of Higher Learning, Puttaparthi, India. November 13.
- 2023 “Nature-based solutions for climate resilient and vibrant societies: Strategies for success.” Joint Water Seoul – Seoul Urban Policy International Conference, Seoul Metropolitan Government. Seoul, Korea. October 23-24.
- 2023 “Nature-based solutions for climate resilient and vibrant societies.” National College, Kathmandu, Nepal.

### Invited Talks (Internal)

- 2024 “Nature-based solutions for climate resilience in urban and rural settings in the U.S.” Department of Sustainable Development, Appalachian State University, NC. March 20.
- 2023 “Human-Environment Geography”. Guest lecture, GHY5000: Research Themes in Geography, Department of Geography and Planning, Appalachian State University, November.
- 2019 “Green cities: resilient communities. Urban green infrastructure inventory and analysis.” Environmental Resilience Institute Data Summit, Indiana University, Bloomington, IN. August 5.

### Conference Presentations (\* indicates student publication)

- 2024 **Thapa, B.**, Hossain, T K S M, Kwon, M Y. Effectiveness of Windbreaks in Reducing Crop Loss in the Midwest, USA. *Annual Meeting of American Association of Geographers*, Honolulu, HI, USA. April 16-20.
- 2023 **Thapa, B.**, Upadhyay, U., Sharma, I. Urban green space is a critical nature-based infrastructure for the climate resilience of Kathmandu Valley, Nepal. *The Annual Kathmandu Conference on Nepal & The Himalaya*, Kathmandu, Nepal. July 26-28.
- 2022 **Thapa, B.**, Lovell, S., Cai, Z., Hossain, T K S M, Kwon, M Y. Agroforestry for climate risk management: Effectiveness of windbreaks in reducing crop loss in the Midwest, USA. *5th World Congress on Agroforestry, Quebec City, Canada*. July 17-20.
- 2021 **Thapa, B.**, Lovell, S. Spatial techniques to quantify aboveground carbon sequestration in agroforestry: A state-of-art review. *North American Agroforestry Conference*, Online. June 28 –July 2.
- 2020 Hamlin, S., Mincey, S., Freeman-Day, S., **Thapa, B.**, McGill, C., Gregory, H., Reynolds,

- H. Race, income, and urban forest quality: A spatial analysis of environmental justice in Indiana. *Annual Meeting of American Association of Geographers*, Seattle, WA. April 7-11.
- 2019 **Thapa, B.**, Hamlin, S., Reynolds, H., Habeeb, D. Mapping and analysis of urban green infrastructure. *Annual Conference of American Community Garden Association*, Indianapolis, Indiana. September 12-15.
- 2019 **Thapa, B.**, Wilson, J., Reynolds, H., Banerjee, A., Hamlin, S., Hatch, E., Habeeb, D., Sullivan, A. Urban agriculture and community resilience: A spatial analysis of the accessibility to urban agriculture in Indianapolis, Indiana. *Annual Meeting of American Association of Geographers*, Washington DC. April 3-7.
- 2018 **Thapa, B.** Do networks facilitate community institutions to cope and adapt to changes? Empirical evidence from irrigated agriculture in Nepal. *Annual Meeting of American Association of Geographers*, New Orleans, LA. April 10-14.
- 2016 **Thapa, B.**, Scott, C.A., Wester, P. Assessment of climate change adaptation in farmer-managed irrigation systems in Trishuli sub-basin of Central Nepal. *Ostrom Center for the Advanced Study of Natural Resources Governance*, Asian Institute of Technology, Bangkok, Thailand. July 13-16.
- 2016 **Thapa, B.** Towards characterizing institutional adaptive capacity: the case of farmer-managed irrigation systems in Nepal. *5th Global Conference of Initiative of Climate Adaptation Research and Understanding through the Social Sciences*, Indian School of Business, Hyderabad, India. June 30 – July 2.
- 2014 **Thapa, B.**, Chhetri, N., Willems, B., Shrestha, M., Scott, C.A. Social-ecological observatories of Mountain Water Towers: Comparative assessment framework. *Global Fair and Workshop on Long-Term Observing Systems of Mountain Social-Ecological Systems*, Reno, NV. July 16-19.
- 2009 Kaza, N., Towe, C., Ye, X., **Thapa, B.** An Economic Model of Land Conversion Incorporating Multiple End Uses. *Annual Meeting of Agricultural and Applied Economist Association*, Milwaukee, Wisconsin. July 26-28.
- 2008 Reiling, S., **Thapa, B.** Reality Check Plus – Implications of Climate Change and Entropy on Energy Demand in the State of Maryland. *Science and Technology in Society Conference*, Washington D.C. April.

#### **Poster Presentations** (\* indicates student publication)

- 2024 Merritt, E. \*, Retchless, D., **Thapa, B.**, Sugg, J. Exploring Second-Order Climate Change Beliefs with Interactive Maps: Insights from a Small Student Sample. *Annual Meeting of American Association of Geographers*, Honolulu, HI, USA. April 16-20.
- 2024 Hites, J. \*, Bennett, W. \*, Wilson, D. \*, **Thapa, B.** Spatiotemporal analysis of tree windbreaks and crop loss from wind events in Kansas and Nebraska, USA. *27th Annual Celebration of Student Research and Creative Endeavors*, Appalachian State University, NC, USA. April 18.
- 2024 Hope, G. \*, Ehlenberger, J. \*, **Thapa, B.** Spatial analysis of wind events and wind-related crop loss for the Midwest, USA. *27th Annual Celebration of Student Research and Creative Endeavors*, Appalachian State University, NC, USA. April 18.
- 2024 Widderich, S. \*, **Thapa, B.** Accessible buildable space: Case study in Boone and Watauga County. *27th Annual Celebration of Student Research and Creative Endeavors*, Appalachian State University, NC, USA. April 18.
- 2024 West, J. \*, Platt, J., Shu, S., **Thapa, B.** Identification of rural building footprint using high-resolution remotely sensed imagery. *27th Annual Celebration of Student Research and Creative Endeavors*, Appalachian State University, NC, USA. April 18.
- 2024 Carpenter, B. \*, Bird, J. \*, **Thapa, B.** Climate mitigation and adaptation actions of cities

- across the world using CDP dataset. *27th Annual Celebration of Student Research and Creative Endeavors*, Appalachian State University, NC, USA. April 18.
- 2023 Suit, E. \*, Emmanuel, H. \*, **Thapa, B.** Pathways for strengthening campus sustainability initiatives at Appalachian State University. *26th Annual Celebration of Student Research and Creative Endeavors*, Appalachian State University, NC, USA. April 19.
- 2023 Ryan, S. \*, Sugg, M., Runkel, J. D., **Thapa, B.** Greenspace, and adolescent mental health: Investigation of socio-demographic effects modifiers and recommendations for community-level mental health interventions. *26th Annual Celebration of Student Research and Creative Endeavors*, Appalachian State University, NC, USA. April 19.
- 2023 Crank, T. \*, Schrum, N. \*, Platt, J., **Thapa, B.** Strategies for improving walkability on campus: case of Appalachian State University. *26th Annual Celebration of Student Research and Creative Endeavors*, Appalachian State University, NC, USA. April 19.
- 2023 Bird, J. \*, Pouport, S. \*, **Thapa, B.** Are Appalachian towns & cities prepared for climate change? Climate initiatives in towns & cities of Appalachia Region. *26th Annual Celebration of Student Research and Creative Endeavors*, Appalachian State University, NC, USA. April 19.
- 2023 Rondinelli-Albarran, V. \*, Rhea-Unruh, W. \*, Apel, T. \*, **Thapa, B.** Nature-based solutions for climate risk management in Boone, North Carolina, USA. *26th Annual Celebration of Student Research and Creative Endeavors*, Appalachian State University, NC, USA. April 19.
- 2023 Pannell, T. \*, **Thapa, B.** Understanding the relationship between windbreaks and wind-related crop loss. *26th Annual Celebration of Student Research and Creative Endeavors*, Appalachian State University, NC, USA. April 19.
- 2023 Emmanuel, H. \*, Suit, E. \*, **Thapa, B.** Pathways for Strengthening Campus Sustainability Initiatives at Appalachian State University. *26th Annual Celebration of Student Research and Creative Endeavors*, Appalachian State University, NC, USA. April 19.
- 2023 Doner, L., **Thapa, B.**, Pendleton, S. Enhancing Computational Pathways in Undergraduate Environmental Majors. Earth Educators' Rendezvous, Pasadena, CA, USA. July 10-14.
- 2019 **Thapa, B.**, J. Wilson, H. Reynolds, A. Banerjee, S. Hamlin, E. Hatch, D. Habeeb, A. Sullivan. Urban agriculture and community resilience: A spatial analysis of the accessibility to urban agriculture in Indianapolis, Indiana. *Annual Meeting of American Association of Geographers*, Washington DC, April 3-7.

## MENTORING

Name/Program	Role	Year
Eden Vigus, BA Sustainable Development	Undergraduate Res. Ass. Mentor	2024
Bella Carpenter, BA Sustainable Development	2 <sup>nd</sup> Reader, Honors Thesis	2024
Stephen Poupart, MA Geography	Internship Supervisor	2023
Sophie Ryan, MA Geography	Master's Thesis Committee Member	2023
Thanh Schado, MA Geography	Master's Thesis Committee Member	2023
Eliza Meritt, MA Geography	Master's Thesis Committee Member	2023
Erali Miller, MA Geography	Master's Thesis Committee Member	2023
Bikalpa Adhikari, MSc Geography, IUPUI	Master's Thesis Committee Member	2021
Brandon Katz, MSc Geography, IUPUI	Master's Thesis Committee Member	2021
Angela Campbell, BA Anthropology, IUPUI	Service Learning Pr. Advisor	2019-2020
Sneh Shah, BSc Public Affairs, IUPUI	Service Learning Pr. Advisor	2019-2020

## TEACHING

GHY 1012	Global Change of Biosphere	Spring 2023 – current
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GHY 5150	GIS Seminar	Spring 2024 – current
GHY 2300	Mountain Environments and People	Summer I 2024
PLN 2410	Town, City, and Regional Planning	Fall 2022 - current
PLN 4030/5030	Planning for Climate Resilience	Fall 2022 - current
PLN 4460/5460	Environmental Policy and Planning	Spring 2023 – current
VAC	Introduction to Geospatial Analysis (SSSIHL, India)	Fall 2023
NAT 8001	Research Methods in Agroforestry S. (U. Missouri)	Fall 2021
GEOG302	Introduction to Sustainable Devt. (U. Arizona)	Summer 2018
GEOG367	Population Geography (U. Arizona)	Winter 2017

### **APPLIED RESEARCH TOOLS**

2024 Indiana Green City Mapper, a web-based spatial database of urban green infrastructure for Indianapolis and Bloomington, IN,  
<https://indiana-green-city-mapper-iu.hub.arcgis.com/>

### **SERVICES**

#### **Department and University Services**

Member, Comprehensive Exam Committee, Department of Geography and Planning (2024-2025)

Member, AI and Computer Literacy Working Group, Department of Geography and Planning (2024- current)

Member, Self-Study Report for Planning Accreditation Board, Department of Geography and Planning (2024- current).

Member, Quality Enhancement Program Implementation Committee, Appalachian State University (2024- current)

Member, Sink Outstanding Scholar Award committee, College of Arts & Sciences, Appalachian State University (2023)

Search Committee, Planning Assistant Professor, Department of Geography & Planning, Appalachian State University (2022)

#### **Professional Services**

Associate Editor, Journal of Environmental Studies and Sciences	2022 – current
Board Member, Sustainability Committee, Town of Boone, NC	2023 – current
Co-chair, Programs and Events Committee, Nepali Academics in America	2023 – current
Editorial Team, Bi-monthly Newsletter, Nepali Academics in America	2021 – 2023
Student representative, School of Geography & Development, U. Arizona	2021
President, Nepalese Student Association, U. Arizona	2015 - 2018

#### **Review Panels**

Reviewer, NASA Postdoctoral Program, Oak Ridge Associated Universities. 2024

#### **Manuscript Reviews**

GIScience & Remote Sensing 2024  
 IPCC Sixth Assessment Report Climate Change 2021:

Impacts, Adaptation and Vulnerability	2021
Frontiers in Sustainable Food Systems	2021
Current Opinion in Environmental Sustainability	2021
International Journal of Environment	2020
World Development	2020
Water International	2016-2018
Ecology & Society	2018
Climate Policy	2018
International Journal of the Commons	2018, 2021
Global Environmental Change	2017
Community Development Journal	2017

### **PROFESSIONAL DEVELOPMENT**

2024	Participant, PREParation for Appalachian Research Experiences (PREPARE), Appalachian State University, NC. Feb – April.
2023	Participant, Course Re-design Institute, Center for Excellence in Teaching and Learning for Student Success Appalachian State University, May 16-19.
2020	Participant, Write Winning Grant Proposals for NSF or General Proposals, Faculty Affairs, School of Medicine, Indiana University, IN. February 20.
2019	Participant, Data to Motivate Synthesis for research on Water-Energy-Food Nexus, National Socio-environmental Synthesis Center, MD. February 11-13.
2018	Participant, International Winter School on Agent-based Modeling of Social-Ecological Systems, Arizona State University, AZ. January 2-7.
2003	Trainee, Introductory and Intermediate Java Programming, Aptech Institute, Kathmandu, Nepal. April 1–September 30.

### **PUBLIC MEDIA OUTREACH**

2017	Thapa, B. Ph.D. Research in Nepal – Part 2: Diary notes from the field. International Water Security Network. <a href="http://www.watersecuritynetwork.org/ph-d-research-in-nepal-part-2-diary-notes-from-the-field/">http://www.watersecuritynetwork.org/ph-d-research-in-nepal-part-2-diary-notes-from-the-field/</a>
2015	Thapa, B. How farmers are responding to Gorkha Earthquake, climatic and socioeconomic changes in Nepal. CLIMAS Program, University of Arizona. <a href="http://www.climas.arizona.edu/blog/bhuwan-thapa-climas-climate-society-fellow">http://www.climas.arizona.edu/blog/bhuwan-thapa-climas-climate-society-fellow</a>
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### **AFFILIATIONS**

American Association of Geographers  
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