

ASIF ISHTIAQUE

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EMPLOYMENT

August 2022- Present	Assistant Professor School of Earth, Environment and Sustainability Missouri State University Springfield, USA
September 2019 – June 2022	Postdoctoral Research Fellow School for Environment & Sustainability University of Michigan, Ann Arbor, USA.
August 2014 – May 2019	Graduate Teaching Assistant School of Geographical Sciences and Urban Planning Arizona State University. Tempe, USA
May 2016 – August 2016	Graduate Research Associate School of Sustainability Arizona State University, Tempe, USA
February 2012 – May 2012	Undergraduate Intern United States Agency for International Development (USAID) Dhaka, Bangladesh Project: Integrated Protected Area Co-management

EDUCATION

2014 – 2019	PhD	School of Geographical Sciences and Urban Planning Arizona State University, USA. Dissertation: <i>Multilevel governance of climate adaptation management in coastal areas: Evidence from Bangladesh.</i> Committee: Hallie Eakin (Co-Chair), Netra Chhetri (Co-Chair), Soe Myint.
2011 – 2013	MS	Major: Disaster Management Department of Geography & Environment, University of Dhaka, Bangladesh.
2007 – 2011	BS	Department of Geography & Environment, University of Dhaka, Bangladesh.

RESEARCH INTERESTS

Climate change adaptation; Agricultural Sustainability; Environmental Management, Food security; Resilience and Vulnerability; Applied Geospatial Sciences; Environmental justice; Land use/land cover change.

PUBLICATIONS

PEER REVIEWED JOURNAL ARTICLES

- 2024**
1. **Ishtiaque, A.**, Krupnik, T., Krishna, V., Uddin, M.N., Aryal, J.K., Srivastava, A.K., Kumar, S., Shahzad, M.F., Bhatt, R., Gardezi, M., Bahinipati, C.S., Nazu, S.B., Ghimire, R., Anik, A.R., Sapkota, T., Ghosh, M., Subedi, R., Sardar, A., Uddin, K.M.Z., Khatri-Chhetri, A., Rahman, M.S., Singh, B., Jain, M. (2024) [Overcoming barriers to climate-smart agriculture in South Asia](#). *Nature Climate Change* (Available online).
 2. Vij, S., Stock, R., **Ishtiaque, A.**, Gardezi, M. and Zia, A. (2024) [Power in climate change policymaking in South Asia](#). *Climate Policy* (Available online)
- 2023**
3. **Ishtiaque, A.** (2023) [US farmers' adaptations to climate change: A systematic review of adaptation-focused studies in the US agriculture context](#). *Environmental Research: Climate 2* (2): 022001.
 4. Prutzer, E., Patrick, A., **Ishtiaque, A.**, Vij, S., Stock, R., Gardezi, M. (2023) [Climate smart irrigation and responsible innovation in South Asia: A systematic mapping](#). *Ambio* (Available online)
 5. Estoque R., **Ishtiaque, A.**, Parajuli, J., Athukorala, D., Rabby, Y.W., and Ooba, M. (2023) [Has the IPCC's revised vulnerability concept been well adopted?](#). *Ambio* 52: 376-389.
 6. Lewis, D., Rahman, M.F., Twinomuhangi, R., Haque, S., Huq, N., Huq, S., Ribbe, L., **Ishtiaque, A.** (2023) [University-based researchers as knowledge brokers for climate policies and action](#). *The European Journal of Development Research* 35(3): 656-683.
- 2022**
7. **Ishtiaque, A.**, Estoque, R., Eakin, H., Parajuli, J., and Rabby, Y.W. (2022) [IPCC's current conceptualization of 'vulnerability' needs more clarification for climate change vulnerability assessments](#). *Journal of Environmental Management* 303: 114246.
 8. **Ishtiaque, A.**, Singh, S., Lobell, D., Singh, B., Fishman, R., Jain, M. (2022) [Prior season crop management constrains farmer adaptation to warming temperature: Evidence from the Indo-Gangetic Plains](#). *Science of the Total Environment* 807(2): 151671.
 9. Gardezi, M., Semhar, M., Stock, R., Vij, S., Ogunyiola, A., **Ishtiaque, A.** (2022) [Prioritizing climate smart agriculture \(CSA\): An organizational and temporal review](#). *WTREs Climate Change*. WCC755.
- 2021**
10. **Ishtiaque, A.**, Eakin, H., Chhetri, N., Vij, S., Rahman, F., Huq, S. (2021) [Multilevel governance in climate adaptation in Bangladesh: structure, processes, and power dynamics](#). *Regional Environmental Change* 21: 75.
 11. **Ishtiaque, A.**, Stock, R., Vij, S., Eakin, H., and Chhetri, N. (2021) [Beyond the barriers: An overview of mechanisms driving barriers to adaptation in Bangladesh](#). *Environmental Policy*

- Ecology & Governance* 31: 316-329.
12. Vij, S., Biesbroek, R., Stock, R.J., Gardezi, M., **Ishtiaque, A.**, Groot, A., Termeer, K. (2021) [‘Power Sensitive Design Principles’ for climate change adaptation policy-making in South Asia](#). *Earth System Governance* 9: 100109.
 13. Ali, U., Wang, J., Ullah, A., **Ishtiaque, A.**, Javed, T. and Nurgazina, Z. (2021) [The impact of climate change on the economic perspectives of crop farming in Pakistan: Using the Ricardian Model](#). *Journal of Cleaner Production* 308: 127219.
- 2020**
14. **Ishtiaque, A.**, Masrur, A., Rabby, Y.W., Jerin, T., and Dewan, A. (2020) [Remote sensing-based research for monitoring progress towards SDG 15 in Bangladesh: A review](#). *Remote Sensing* 12 (4): 691
 15. Rabby, Y.W., **Ishtiaque, A.**, and Rahman, M.S. (2020) [Evaluating the effects of Digital Elevation Models in landslide susceptibility mapping in Rangamati district, Bangladesh](#). *Remote Sensing* 12 (17): 2718.
 16. Stock, R.J., Vij, S., and **Ishtiaque, A.** (2020) [Powering and puzzling in climate change adaptation policies in Bangladesh & India](#). *Environment, Development and Sustainability* 23: 2314-2336.
- 2019**
17. **Ishtiaque, A.**, Eakin, H., Chhetri, N., Myint, S., Dewan, A., and Kamruzzaman, M. (2019) [Examining coastal vulnerability frameworks at multiple levels of governance using spatial MCDA approach](#). *Ocean & Coastal Management* 171: 66-79.
 18. Chhetri, N., Stuhlmacher, M., and **Ishtiaque, A.** (2019) [Nested pathways to adaptation](#). *Environmental Research Communications* 1: 015001.
- 2018**
19. Estoque, R., Myint, S.W., Wang, C., **Ishtiaque, A.**, Aung, T.T., Ooba, M., Emerton, L., Mon, M.S., Wang, Z., and Fan, C. (2018) [A new estimate of mangrove forest cover changes in Myanmar \(2000 to 2014\): Assessing Environmental Impacts](#). *Global Change Biology* 24 (11): 5391-5410.
- 2017**
20. **Ishtiaque, A.**, Sangwan, N., and Yu, D. (2017) [Robust-yet-fragile nature of partly engineered coastal social-ecological systems: a case study of coastal Bangladesh](#). *Ecology & Society* 22 (3): 5.
 21. **Ishtiaque, A.**, Shrestha, M., and Chhetri, N. (2017) [Rapid urbanization in the Kathmandu valley, Nepal: Monitoring land use land cover dynamics with Landsat imagery](#). *Environments* 4 (4): 72. (Invited paper, SI: Sustainable Territorial Management)
 22. **Ishtiaque, A.** and Nazem, N. I. (2017) [Household level disaster induced losses and rural-urban migration: Experience from world’s one of the most disaster affected countries](#). *Natural Hazards* 86: 315-326.
- 2016**
23. **Ishtiaque, A.** and Chhetri, N. (2016) [Competing policies to protect mangrove forest: A case from Bangladesh](#). *Environmental Development* 19: 75-83.
 24. **Ishtiaque, A.**, Myint, S.W., and Wang, C. (2016) [Examining the ecosystem health and sustainability of world’s largest mangrove forest using multi-temporal MODIS products](#). *Science of the Total Environment* 569-570: 1241-1254.

BOOK CHAPTERS AND REPORTS

1. **Ishtiaque, A.** (2021) Multilevel governance of climate change adaptation: Conceptual clarification and future outlook. In Ali, F. (edt.) *Climate Change and Extreme Events*. Elsevier: the Netherlands. pp. 171-185.
2. **Ishtiaque, A.** (2020) Bangladesh Flood. In Paul, B.K (edt.) *Natural Hazards and Disasters: From Avalanches and Climate Change to Water Sprouts and Wildfire*. Volume 1. ABC-Clio: Santa Barbara, USA.
3. Riadh, S.M., Chowdhury, R.M. and **Ishtiaque, A.** (2012) Community based Climate Change Adaptation Plan, a report prepared for USAID Bangladesh under IRG supervision, Dhaka.

PRESENTATIONS

Oral Presentations

* represents presenting author

1. **Ishtiaque, A.*** and Jain, M. (2023) Wheat Production in India will decline by 2050, paper presented at the *AAG Conference 2023* held on March 23 – 27 at Denver, Colorado, USA.
2. **Ishtiaque, A.*** and Jain, M. (2022) Prior cropping season decisions constrain farmers to adapt: Evidence from Indo-Gangetic Plains, paper presented at the *AAG Conference 2022* held on February 25 – March 01 (online).
3. **Ishtiaque, A.** and Eakin, H.* (2019) Multilevel adaptation governance in Bangladesh, paper presented at the *Earth System Governance Conference* held on November 6 – 8 at Oaxaca, Mexico.
4. **Ishtiaque, A.*** (2019) How do barriers emerge in adaptation governance in Bangladesh: A mechanism-based explanation, paper presented at the *Sustainability and Development Conference* held on October 11 – 14 at Ann Arbor, Michigan, USA.
5. **Ishtiaque, A.*** (2019) Multilevel adaptation governance in Bangladesh: Structure, processes, power dynamics, paper presented at the *AAG Conference 2019* held on April 03 – 07 at Washington DC, USA.
6. **Ishtiaque, A.*** (2018) Multilevel governance of climate change vulnerability management in coastal social-ecological systems: Evidence from Bangladesh, paper presented at the *AAG Conference 2018* held on April 10 – 14 at New Orleans, Louisiana, USA.
7. **Ishtiaque, A.*** and Yu, D. J. (2017) Resilient-yet-vulnerable: A case of scale challenges posed by adaptation actions in coastal Bangladesh, paper presented at the *AAG Conference 2017* held on April 05 – 09 at Boston, Massachusetts, USA.
8. Myint, S.W.*, Wang, C., and **Ishtiaque, A.** (2017) A space-time analysis approach to tackle some emerging environmental issues, paper presented at the *Annual World Bank Conference on Land and Poverty* held on March 20 – 24 at Washington DC, USA.
9. **Ishtiaque, A.***, Myint, S.W., and Wang, C. (2016) Modeling spatiotemporal dynamics in Sundarban, paper presented at the *AAG Conference 2016* held on March 29 – April 02 at San Francisco, California, USA.
10. **Ishtiaque, A.*** and Yu, D. J.* (2015) Robustness of a coupled infrastructure system: A case of Southwest Bangladesh, paper presented at the satellite session on ‘The robustness of coupled infrastructure and complexity’ at the *Conference on Complex Systems (CCS)* held on September 28-October 02 at Tempe, Arizona, USA.

Poster Presentations

1. Ogunyila, A.*, Gardezi, M., Michael, S., **Ishtiaque, A.**, May, C., Stock, R., and Vij, S. (2020) Prioritizing Climate Smart Agriculture (CSA): An organizational analysis, poster presented at the *SDSU Data Science Symposium* held on February 11-12 at Brookings, South Dakota, USA.
2. **Ishtiaque, A.***, Chhetri, N., and Eakin, H. (2018) Structural analysis of multilevel adaptation governance network in Bangladesh, poster presented virtually at the *American Geophysical Union (AGU) Conference* online platform.
3. **Ishtiaque, A.** and Shrestha, M.* (2018) Urbanization in the Himalayas?: Detecting loss of agricultural land due to urban growth in the Kathmandu valley, Nepal, poster presented at the *CAP-LTER 20th Annual All Scientists Meeting* held on January 5 at Tempe, Arizona, USA.
4. **Ishtiaque, A.***, Nazem, N. I. and Jerin, T. (2015) Natural disaster induced losses at household level: A study on the disaster affected migrants, poster presented at *American Geophysical Union (AGU) Conference* held on December 14-18 at San Francisco, California, USA.
5. Jerin, T.* and **Ishtiaque, A.** (2015) Groundwater Depletion in Dhaka City, Bangladesh: A spatio-temporal analysis, poster presented at *American Geophysical Union (AGU) Conference* held on December 14-18 at San Francisco, California, USA.

OUTREACH

1. **Ishtiaque, A.**, (2020, July 21) Empower BWDB for effective flood management. *New Age*.
<https://www.newagebd.net/article/111654/empower-bwdb-for-effective-flood-management>

TEACHING

- Missouri State University
 - GRY 135: Principles of Weather and Climate (Fall'22,23, Spring'23,24)
 - GRY 108: Principles of Sustainability (Spring'24)
 - GRY 351: Sustainable Management of Natural Resources (Spring'23,24)
 - GRY 545: Global Environmental Change (Fall'23)
- University of Michigan
 - EAS 501: Social Vulnerability to Environmental Change (Spring'22)
- Arizona State University
 - GPH 112: Introduction to Physical Geography (Lab) (Fall'14,15,16,17; Spring'15,16,17,18)
 - GPH 314: Global Change (online) (Summer'18)

GRANTS

- Missouri State University (\$6000) "Toward Equitable Resilience: Exploring Marginalization in Climate Adaptation Strategies in Bangladesh"
PI: Asif Ishtiaque

- Natural Resources Conservation Science (\$370,000) “Statewide HUC8 Watershed Evaluation Tool for Missouri”.
PI: R. Pavlowski; Co-PI: M. Owen; Consultant: [A. Ishtiaque](#)
- +Policy Research Supplement, Virginia Tech University (\$10500). “Responsible innovation and governance of climate smart irrigation technologies in the Hindu Kush Himalayas”.
PI: M. Gardezi; Consultants: [A. Ishtiaque](#), S. Vij, R. Stock

AWARDS

- Professional Development Award 2021: University of Michigan Postdoctoral Association
- ASU College of Liberal Arts & Science Graduate Excellence Award 2018.
- Jeanne X. Kasperson Student Paper Award, AAG Hazards, Risks & Disasters Specialty Group (AAG 2018)
- Matthew G. Bailey Fellowship, Arizona State University 2016
- Travel Award 2016-2019: ASU Graduate Professional Student Association
- Bangladesh-Sweden Trust Fund Travel Award 2015
- Dhaka University Merit Grant 2011

GRADUATE STUDENT ADVISING

- Samiha Nuzhat (Advisor; 2023 – 2025)
- Sobia Shah (Advisor; 2023 – 2025)
- Daniel Donkor (Advisor, 2023 – 2025)
- Yetimoni Kpeebe (Committee member; 2022 – 2024)

DEPARTMENTAL SERVICES

- Member: *Public Affairs Conference Committee* (2024-25)
- Member: *Graduate Admission and Recruiting Committee* (2022-23)
- Member: *Bull Shoals Field Station* (2023-24)
- Member: *College of Natural and Applied Sciences Student Scholarship Committee* (2022-23)
- Member: *Geography, Planning and Geospatial Science Scholarship Committee* (2022-24)

PROFESSIONAL SERVICES

- Reviewer of the IPCC Sixth Assessment Report to be published in 2022 (First-order draft).
- Session Chair at AAG 2017.
- Research Grant Reviewer: ASU Graduate Professional Student Association.
- Travel Grant Reviewer: ASU Graduate Professional Student Association.
- General Secretary at Bangladesh Student Association, Arizona State University.

- Founding General Secretary at the *Environment Club*, Department of Geography & Environment, University of Dhaka, Bangladesh.
- Organizer of the UN-WOMEN activism against Gender Violence.
- Reviewer of Journals:
 - *Agroecology & Sustainable Food Systems*
 - *Annals of the American Association of Geographers*
 - *Applied Geography*
 - *Climate Policy*
 - *Climate Risk Management*
 - *Earth Systems and Environment*
 - *Ecology & Society*
 - *Environment, Development and Sustainability*
 - *Environmental Challenges*
 - *Environmental Development*
 - *Environmental Research Letters*
 - *Environmental Science & Policy*
 - *Forest Ecology and Management*
 - *Frontiers in Political Science*
 - *GeoJournal*
 - *Heliyon*
 - *Human Ecology*
 - *Hydrological Sciences*
 - *International Journal of Disaster Risk Reduction*
 - *International Journal of Water Governance*
 - *ISPRS International Journal of Geo-Information*
 - *Journal of Environmental Management*
 - *Journal of Environmental Planning and Management*
 - *Journal of Cleaner Production*
 - *Land*
 - *Oxford Open Climate Change*
 - *Ocean and Coastal Management*
 - *PLOS One*
 - *Regional Environmental Change*
 - *Remote Sensing*
 - *Remote Sensing in Earth System Sciences*
 - *Science of the Total Environment*
 - *Scientific Reports*
 - *Sustainability*
 - *The Professional Geographer*
 - *World Development*