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Sustainability, Dana 3575,  
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#### EMPLOYMENT:

September 2019 – Present      Postdoctoral Research Fellow  
School of Environment & Sustainability  
University of Michigan, Ann Arbor, USA.  
Research Project: The Future of Food Security in India: Can Farmers  
Adapt to Environmental Change? (Sponsor: NASA)  
Advisor: Dr. Meha Jain

#### EDUCATION:

2014 – 2019      PhD      School of Geographical Sciences and Urban Planning  
Arizona State University, USA.  
Dissertation: *Multilevel governance of climate adaptation management in coastal areas: Evidence from Bangladesh.*  
Committee Members: 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 resilience; Adaptation; Vulnerability; Sustainability; Environmental governance;  
Environmental management; Land use/land cover change.

#### PUBLICATIONS:

Citations: 160  
h-index: 6  
i10-index: 5

[GOOGLE SCHOLAR PROFILE](#)

#### *REFEREED JOURNAL ARTICLES*

1. **Ishtiaque, A.**, Eakin, H., Chhetri, N., Myint, S., Dewan, A., and Kamruzzaman, M. (2019) Examining coastal vulnerability frameworks at multiple levels of governance. *Ocean & Coastal Management* 171: 66-79.
2. Chhetri, N., Stuhlmacher, M., **Ishtiaque, A.** (2019) Nested pathways to adaptation. *Environmental*

*Research Communications 1*: 015001.

3. 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.
4. **Ishtiaque, A.**, Sangwan, N., and Yu, D. (2017) Robust-yet-fragile nature of party engineered coastal social-ecological systems: a case study of coastal Bangladesh. *Ecology & Society* 22 (3): 5.
5. **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)
6. **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.
7. **Ishtiaque, A.** and Chhetri, N. (2016) Competing policies to protect mangrove forest: A case from Bangladesh. *Environmental Development* 19: 75-83.
8. **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.
9. **Ishtiaque, A.**, Mahmud, M.S., and Rafi, M.H. (2014) Encroachment of canals of Dhaka city, Bangladesh: An investigative approach. *GeoScape* 8 (2): 48-64.
10. **Ishtiaque, A.** and Ullah, S. (2013) Influence of factors of migration on the migration status of rural-urban migrants in Dhaka, Bangladesh. *Human Geographies* 7 (2): 45-52.
11. Mahmud M.S., Masrur A., **Ishtiaque A.**, Haider F., Habiba U. (2011) Remote Sensing & GIS based spatio-temporal change analysis of wetland in Dhaka city, Bangladesh. *Journal of Water Resource and Protection* 3 (11): 781- 787.
12. **Ishtiaque, A.** and Mahmud, M.S. (2011) Migration objectives and their fulfillment: A micro level study of the rural-urban migrants of the slums of Dhaka city. *Geografia* 7(4): 24-29.

#### **MANUSCRIPTS UNDER REVIEW/IN PREPARATION**

1. **Ishtiaque, A.**, Eakin, H., Chhetri, N., Vij, S., Huq, S., Rahman, F. () Multilevel governance in climate adaptation in Bangladesh: structure, processes, and power dynamics. *Regional Environmental Change* (under review)
2. Stock, R.J., Vij, S., and **Ishtiaque, A.** () Powering and puzzling in climate change adaptation policies in Bangladesh & India. *Environment, Development and Sustainability*. (under review)
3. Vij, S., Stock, R.J., **Ishtiaque, A.**, Gardezi, M., Biesbroek, R., Groot, A., Termeer, K. () Power to adapt: How to derive 'Power Sensitive Design Principles' for long term climate change adaptation policies in South Asia? *Climate and Development* (under review)
4. **Ishtiaque, A.**, Eakin, H., Stock, R., Vij, S., Chhetri, N. () Mechanisms to barriers to adaptation governance in Bangladesh. (in preparation; target: Environmental Policy & Governance).
5. **Ishtiaque, A.**, Eakin, H., Chhetri, N. () Governance capabilities for climate adaptation in the coastal areas of Bangladesh. (in preparation; target: Climate and Development)

**OTHERS**

1. **Ishtiaque, A.** (2019) The 1998 Flood in Bangladesh. In Paul, B.K (eds.) *Natural Hazards and Disasters: From Avalanches and Climate Change to Water Sprouts and Wildfire*. ABC-Clio: Santa Barbara, USA. (upcoming)
2. 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.

**ACADEMIC PRESENTATIONS:****ORAL PRESENTATION**

1. **Ishtiaque, A.** (2019) Multilevel adaptation governance in Bangladesh: Structure, processes, power dynamics, paper presented at *AAG Conference 2019* held on April 03 – April 07 at Washington DC.
2. **Ishtiaque, A.** (2018) Multilevel governance of climate change vulnerability management in coastal social-ecological systems: Evidence from Bangladesh, paper presented at *AAG Conference 2018* held on April 10 – April 14 at New Orleans, Louisiana.
3. **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 *AAG Conference 2017* held on April 05 – April 09 at Boston, Massachusetts.
4. Myint, S.W., Wang, C., and **Ishtiaque, A.** (2017) A space-time analysis approach to tackle some emerging environmental issues, paper presented at *Annual World Bank Conference on Land and Poverty* held on March 20 – 24 at Washington DC.
5. **Ishtiaque, A.**, Myint, S.W., and Wang, C. (2016) Modeling spatiotemporal dynamics in Sundarban, paper presented at *AAG Conference 2016* held on March 29 – April 02 at San Francisco, California.
6. **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 *Conference on Complex Systems (CCS)* held on September 28-October 02 at Tempe, Arizona.
7. **Ishtiaque, A.** (2012) How rural-urban migration contributes to the development of a mega city: A case from Bangladesh, *Proceeding at International Congress on Social & Cultural Studies* at Port Harcourt, Nigeria, September 4-8, pp. 366-376.

**POSTER PRESENTATION**

1. **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.
2. **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 20<sup>th</sup> Annual All Scientists Meeting* held on January 5 at Tempe, Arizona.
3. **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.

4. 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.

#### PROFESSIONAL EXPERIENCES:

- Aug 2014 – May 2019      *Graduate Teaching Assistant*, School of Geographical Sciences and Urban Planning, Arizona State University.  
Responsibilities: Instructor in the ‘GPH-112: Introduction to Physical Geography Lab’ for six semesters. Each semester the student enrolment was 105. Instructor in the ‘GPH-314: Global Change’ for one semester. Duties include preparing and delivering class lectures, grading exam papers, assisting students in completing lab exercises.  
Teaching assistant in the ‘GPH-314: Global Change’ for three semesters. Duties include assisting the lecture professor in preparing lectures, grading assignments and exam papers, helping students in learning details.
- May– Aug, 2016            *Graduate Services Associate*, Julie Ann Wrigley Global Institute of Sustainability, School of Sustainability, Arizona State University.  
Responsibilities: Analyzing data and creating maps using ArcGIS to represent the risk of Himalayan mountain communities to glacial lake outburst flood in the NSF project ‘science driven, community based approach to reducing glacial lake outburst flood risks’.
- Feb – May, 2012            *Intern*, USAID Bangladesh.  
Project: Integrated Protected Area Co-management  
Responsibilities: Build and maintain a database of village conservation forum based global climate change adaptation plans and support the governance specialist to prepare a technical report.
- March 2011                 *GIS Facilitator*, Department of Geography and Environment, University of Dhaka, Bangladesh.  
Responsibilities: Assisting students in learning ArcGIS in an evening course.
- July – Nov 2010            *GIS Analyst*, Department of Geography and Environment, University of Dhaka, Bangladesh.  
Responsibilities: Data input, integration, manage, and map creation using ArcGIS for ‘Dhaka A-Z Street Atlas’ project.

#### WORKSHOPS ATTENDED:

- ‘Google Earth Engine Workshop 2018’ – a 1-day workshop organized by Arizona State University.
- ‘Introduction to Social Network Analysis 2018’- a 5-day workshop on computational social network analysis organized by the National Socio-Environmental Synthesis Center (SESYNC).
- ‘Introduction to Agent Based Modeling 2018’- a 5-day workshop organized by the SESYNC.

- 'LINKS Center workshop on social network analysis 2016' - a 5-day workshop organized by University of Kentucky.

### SKILLS:

Geospatial Analysis: ArcGIS, ERDAS Imagine, GeoDa, Python (pysal), GWR, Google Earth Engine, R.  
Statistics: R, IBM SPSS.

Social Network Analysis: R, UCINET, Gephi.

Multi-Criteria Decision Analysis: Super Decision.

Qualitative Data Analysis: Atlas.ti

Others: MS Office (Word, Excel, PowerPoint), Netlogo agent based programming (basic), Inkscape.

Social Survey: Household and Organizational survey, Key-informant interview, Focus group discussion.

Language: Bangla (native), English (proficient), Hindi (advanced, speaking & listening), French (beginner).

### GRANTS AND AWARDS:

- 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 (\$1500)
- Travel Grant 2019: ASU Graduate Professional Student Association (\$950)
- Travel Grant 2018: ASU Graduate Professional Student Association (\$950)
- Travel Grant 2017: ASU Graduate Professional Student Association (\$950)
- Travel Grant 2016: ASU Graduate Professional Student Association (\$950)
- Bangladesh-Sweden Trust Fund Travel Award 2015 (\$600)
- Dhaka University Merit Grant 2011 (\$250)

### PROFESSIONAL SERVICES:

- 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:
  - *Remote Sensing* (5)
  - *Sustainability* (3)
  - *Environment, Development and Sustainability* (2)
  - *Environmental Development* (2)
  - *Journal of Environmental Planning and Management*

- *Climate Policy*
- *Applied Geography*
- *Science of the Total Environment*
- *PLOS One (2)*
- *ISPRS International Journal of Geo-Information*
- *Forest Ecology and Management*
- *The Professional Geographer*
- *Land*
- *Agroecology & Sustainable Food Systems*
- *Chinese Journal of Oceanology and Limnology*
- *GeoScape*

**PROFESSIONAL MEMBERSHIPS:**

- Association of American Geographers
- American Society for Photogrammetry and Remote Sensing
- American Geophysical Union
- Arizona Association of Environmental Professionals