

# CURRICULUM VITAE

## SAYED MOHAMMAD NAZIM UDDIN

Assistant Professor of Environmental Sciences

Asian University for Women

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## CAREER HIGHLIGHTS

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- Undergraduate and advanced degrees (BSc, two MSc, PhD) in Engineering and Environmental Sciences, as well as several diplomas and certificates in specialized fields.
- Over 15 years of experience (research, teaching, and implementation) in the fields of water resources management, inclusive waste management, resource-oriented sanitation, community-based research, sustainability, ecology, environmental health, and human geography.
- Over 10 years of direct experience in working with Indigenous communities, ethnic minority groups, nomadic people, children, refugees, waste pickers, disabled people, and other socially marginalized people around the world.
- Author or co-author of peer-reviewed journal articles (22), book chapter (1), conference proceedings/posters/presentations (>40), technical guidelines (2), compendium (1), and policy briefs (2) in the above-mentioned fields (Total IF >56).
- To date, supervision and training of a total of over 300 students (both graduate and undergraduate), interns and research assistants in Bangladesh, Canada, China, Japan, Kenya, Nigeria, Germany, Mongolia, and other Asian countries.
- Principal investigator or co-investigator on 12 research and implementation funds/grants.

## CURRENT POSITIONS AND AFFILIATIONS

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**Assistant Professor**, Department of Environmental Sciences, Asian University for Women, Bangladesh

**Visiting Research Assoc. & Sessional Lecturer**, Dept. of Geography, University of Victoria, Canada

**Director (Program & Research)**, Bangladesh Environmental Research Foundation, Bangladesh

## EDUCATION

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**Doctor of Engineering in Environmental Science and Engineering**

**2015**

Action Contre la Faim International Scholar

Department of Environmental Science and Engineering

School of Civil and Environmental Engineering

University of Science and Technology Beijing (USTB), China

**International Course on Environmental Accounting and Management**

**2014**

School of Environment

State Key Joint Laboratory of Environmental Simulation and Environmental Control

China Chapter of International Society of Advanced Energy Research

Beijing Normal University, Beijing, China

### **Master of Science in Environmental Studies**

**2011**

MEXT-Japanese Government Scholar

Department of Environmental Engineering and Architecture

Graduate School of Environmental Studies

Nagoya University, Nagoya, Japan

### **Certificate Course (2 Years) in Water and Waste Management**

**2011**

MEXT-Japanese Government Scholar

Nagoya University Global Environmental Leaders Program

Nagoya University, Nagoya, Japan

### **International Diploma in Community Development**

**2009**

Japan Asian Association and Asian Friendship Society (JAFS) Scholar

Asian Social Institute, Manila, Philippines

### **Master of Science in Water Resources Development**

**2009**

Japan Asian Association and Asian Friendship Society (JAFS) Scholar

Institute of Water and Flood Management (IWFM)

Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh

### **Bachelor of Science (4-Year Honors) in Environmental Science**

**2003**

Ranked 1<sup>st</sup> Class 2<sup>nd</sup> (Gold Medalist)

National University, Bangladesh

### **RESEARCH INTERESTS**

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- Water Resources Management
- Wastewater/Greywater Treatment and Management
- Global Drinking Water, Sanitation and Hygiene (WASH) & Health
- Solid Waste Management
- Sustainable Sanitation and Resource Recovery
- Community-based Research
- Indigenous and Minority Research
- Social Exclusion and Right-based Approach
- Disaster/Hazard Risk Reduction

### **TEACHING INTERESTS**

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<b>Courses Currently Taught (Senior Undergraduate)</b>	<b>Institute</b>	<b>Period</b>	<b>Enrolment</b>
▪ BIOL/ENVS 3003: Ecology (With Lab)	AUW	Fall 2019	15
▪ BIOL/ENVS 3003: Ecology Lab	AUW	Fall 2019	15
▪ ENVS 3018: Global Water, Sanitation, and Hygiene	AUW	Fall 2019	25

▪ ENVS 4980: Senior Seminar in Environment Science	AUW	Fall 2019	14
▪ GEOG 371: Water Resources Management	UVic	Spring 2019	20
▪ GEOG 370: Hydrology (Lab-Section A)	UVic	Spring 2019	20
▪ GEOG 370: Hydrology (Lab-Section B)	UVic	Spring 2019	21

#### **Taught Courses (Senior Undergraduate)**

▪ ENVS 3008: Water Management	AUW	Fall 2018	15
▪ ENVS 3003: Ecology	AUW	Fall 2018	15
▪ ENVS 4003: Waste Management	AUW	Fall 2018	15
▪ ENVS 3009: Urban Water, Sanitation and Hygiene	AUW	Summer 2018	18
▪ ENVS 3010: Environmental Health	AUW	Summer 2018	18
▪ GEOG 371: Water Resources Management	UVic	Spring 2018	17
▪ GEOG 391: Introduction to Global Water, Sanitation and Hygiene (for both UG and Graduate)	UVic	Spring 2017	18
▪ GEOG 327: Research Methods in Human Geography (Lab)	UVic	Fall 2017	14
▪ GEOG 218: Social and Cultural Geography (Lab)	UVic	Spring 2016	25

#### **Courses Under Development**

- Emerging Diseases
- Water, Health, and Sustainable Development
- Ecological Sanitation
- Wastewater Treatment and Management

#### **RESEARCH GRANTS/FUNDING/COLLABORATIONS**

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1. **Principal Investigator:** Driving, sharing, co-creating WASH2 knowledge among the AUW and local communities, United Board for Christian Higher Education in Asia. **(5500 CAD) 2019-2022**
2. **Co-Principal Investigator:** Point of Collection Water Treatment, Grant Challenge Canada **2019-2022**
3. **Principal Investigator:** Water, sanitation and hygiene-borne health and environmental hazards in Chittagong city, Faculty Research Grant, AUW, Bangladesh **(700 CAD) 2018-2019**
4. **Co-Investigator:** Exploring waste and sanitation hazards in Rohingya Refugee Camps in Bangladesh, CAPI Faculty Research Grant, University of Victoria, Canada **(5000CAD) 2018-2020**
5. **Co-Investigator:** Mapping waste governance in Canada, Sweden, Brazil, Mongolia, and Kenya, SSHRC Partnership Development Grant **(200000CAD) 2017-2020**
6. **Co-Investigator:** Rapid assessment of livelihoods of informal recyclers in Bangladesh, CAPI Faculty Research Grant **(5000CAD)**, University of Victoria, Canada **2017-2020**
7. **Co-Investigator:** Informal recyclers in long winter cold country with fast growing economy: A perspective from Mongolian solid waste management system, SSHRC Insight Development Grant **(75000CAD)**, Canada, University of Victoria. **2016-2018**
8. **Co-Investigator:** Research and development of biogas production efficiency in domestic biogas digesters suitable for Bangladesh. Funded by World Bank and IDCOL **(160,000 CAD) 2016-2018**
9. **Principal Investigator and Project Manager,** Sustainable Sanitation for vulnerable peri-urban population in Mongolia, jointly executed by ACF Mongolia and USTB, funded by ACF International France **(1.5 million CAD). 2012-2015**
10. **Principal Investigator:** Water, sanitation and hygiene for homeless people. Self-Funded, Supervisor- JC Gaillard, University of Auckland, New Zealand. **(500 CAD) 2011-2015**

11. **Principal Investigator:** Assessment of WASH related problems in Mindanao, Philippines, ACF International and ACF Philippines. (5000 CAD) **February 2013**
12. **Co-Investigator:** A study on water crisis and possible solutions in five different regions of Bangladesh, Funded by Bielefeld University, Germany. (3000 CAD) **2008**
13. **Principal Investigator and Field Coordinator:** Impact of Cyclone SIDR on Rural Community: A Socio-economic Analysis, Case study on two villages of Barisal District, Funded by Japan Asian Association and Asian Friendship Society (JAFS), Japan. (100,000 CAD) **2007-2008**

## PUBLICATIONS

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### Peer-Reviewed Journal Articles (SCI/SSCI/EI Indexed) (Total IF-56.708)

1. **Uddin, S.M.N.**, Lapegue, J., Gutberlet, J., Adamowski, J.F., Dorea, C.C., & Sorezo, F. (2019) A traditional closed-loop sanitation system in chronic emergency: a qualitative study from Afghanistan, *Water*, 11, 298, 1-12. doi:10.3390/w11020298. **SCI & SSCI-IF-2.524**
2. Zhou, X...**Uddin, S.M.N.** (2018) Review of global sanitation development, *Environment International*, 120, 246-261. **SCI-IF- 7.748**
3. Gutberlet, J. and **Uddin, S.M.N.** (2018) Household waste and health risks affecting waste pickers and the environment in low- and middle-income countries, *International Journal of Occupational and Environmental Health*, 23(4), 299-310. **SCI-IF-1.195**
4. **Uddin, S.M.N.** and Gutberlet, J. (2018) Livelihood and health status of informal recyclers in Mongolia, *Resource, Conservation and Recycling*, 134, 1-9. **SCI-IF-7.044**
5. Cheng, S. Li, Z., **Uddin, S.M.N.**... (2018) Toilet revolution in China, *Journal of Environmental Management*, 1-10. **SCI-IF-4.865**
6. Jubayer, A., **Uddin, S.M.N.**, Nasiruddin, S.M., Ergun, D. Adamowski, J. (2017) Water, sanitation and hygiene for small shopkeepers: a perspective from Bangladesh, *JSM Environmental Science & Ecology*, 5(1), 1041.
7. **Uddin, S.M.N.** (2016) Exposure of pediatric population to global WASH-borne hazards, *Mathews Journal of Pediatrics*, 1(1), 5.
8. Zhou, X., Li, Y., Li, Z., Xi, Y., **Uddin, S.M.N.** and Zhang, Y. (2017) Investigation on microbial inactivation and urea decomposition in human urine during thermal storage, *Journal of Water, Sanitation and Hygiene for Development*, 7(3), 378-386. **SCI-IF-0.977**
9. **Uddin, S.M.N.**, Li, Z., Ulbrich, T., Mang, H. P., Adamowski, J. F., Ryndin, R. (2016) Household Greywater Treatment in water-stressed regions in cold climates using 'Ice-Block Units': Perspective from the coldest capital in the world. *Journal of Cleaner Production*. 133, 1312-1317. **SCI-IF-6.395**
10. **Uddin, S.M.N.** Tempel, A., Adamowski, J. F., Lapegue, J., Li, Z., and Mang, H.P. (2016) Exploring alternative sources of funding for deploying sustainable sanitation technologies and services in Mongolia. *International Journal of Water Resource Development*. 32(6), 881-894. **SCI-IF-2.081.**
11. **Uddin, S.M.N.**, Li, Z., Adamowski, J.F, Ulbrich, T., Mang, H.P., Ryndin, R., Norvanchig, J., Lapegue, J. Wriege-Bechthold, A. and Cheng, S. (2016) Feasibility of 'Greenhouse System' for Household Greywater Treatment in Nomadic-Cultured Communities in Peri-Urban Ger Areas of Ulaanbaatar, Mongolia: Way to Reduce Greywater-Borne Hazards and Vulnerabilities. *Journal of Cleaner Production*. 114, 431-442. DOI- 10.1016/j.jclepro.2015.07.149, **SCI-IF-6.395**
12. **Uddin, S.M.N.**, Walters, V., Gaillard, J.C., Hridi, S.M. and McSherry, A. (2016) Water, sanitation and hygiene for homeless people. *Journal of Water and Health*, 14(1), 47-51. doi:10.2166/wh.2015.248, **SCI-IF-1.683**

13. Cheng, S., Zhao, M., Wang, Z., Yun, Y. and **Uddin, S. M. N.** (2015) Study on the effect of iron- carbon filter on simultaneous nitrogen and phosphorus removal during short-cut nitrification and denitrification, *Chemical Engineering Transactions*, 46, 805- 810.
14. **Uddin, S.M.N.**, Li, Z., Ibrahim, M. B., Lapegue, J., Adamowski, JF., Donati, P. F., Huba, EM, Mang, HP. Avirmed, B. and Cheng, S. (2015) Evaluation of ‘Closed-loop sanitation system’ in a country with cold climate: a case from peri-urban Ger areas of Mongolia. *Environment and Urbanization*. 27(2), 1-18. **SSCI-IF-3.015**
15. Yun, Y., Zhou, X., Li, Z., **Uddin, S.M.N.** and Bai, X. (2015) Comparative research on phosphorus removal of pilot-scale vertical flow constructed wetlands using steel slag and modified steel slag as substrates. *Water Science and Technology*. 7(71), 996-1003. **SCI-IF-1.624**
16. Mahmood, I.B., Li, Z., **Uddin, S.M.N.**, Mang, H.P., and Germer, J. (2015) Co- composting of fecal matter in Mongolia using two different technologies. *Journal of Water, Sanitation and Hygiene for Development*, 5(1), 165-171. **SCI-IF-0.977**.
17. **Uddin, S.M.N.**, Li, Z., Mang, HP., Ulbrich, T., Schubler, A., Rheinstein, E., Huba, E.M., and Lapegue, J. (2014) Opportunities and challenges for greywater treatment and reuse in Mongolia: Lessons learnt from piloted systems, *Journal of Water Reuse and Desalination*, 4(3)182-193. **SCI- IF-1.538**
18. **Uddin, S.M.N.**, Li, Z., Mang, H. Huba, E.M., and Lapegue, J. (2014) A strengths, weaknesses, opportunities and threats analysis on integrating safe water supply and sustainable sanitation systems. *Journal of Water, Sanitation and Hygiene for Development*, 4(3), 437-448. **SCI-IF-0.977**.
19. **Uddin, S.M.N.**, Li, Z., Gaillard, J. C., Tedoff, PF., Lapegue, J, Mang, HP., Huba, E.M. Kummel, O., and Rheinstein, E. (2014) Exposure to WASH-borne hazards: A scoping study on peri-urban Ger areas in Ulaanbaatar, Mongolia. *Habitat International*, 44, 403-411. **SSCI-IF-3.846**
20. Diang, N., Li, Z., Zhou, X., Hu A., Bai, X. and **Uddin, S. M. N.** (2014) Feasibility assessment of LID concept for storm water management in China through SWOT analysis. *Journal of Southeast University*, 30 (2), 225-229. **EI**.
21. **Uddin, S.M.N.**, Muhandiki, and Sakai, A., Mamun, A. A., and Hridi, S. M. (2014) Socio-cultural acceptance of appropriate technology: identifying and prioritizing barriers for widespread use of the Urine Diversion Toilets in Rural Muslim Communities of Bangladesh. *Technology in Society*, 38, 32-39. **IF-1.670**
22. **Uddin, S.M.N.**, Muhandiki, V.S. Fukuda, J. Nakamura, M. and Sakai, A. (2012) Assessment of Social Acceptance and Scope of Scaling Up Urine Diversion Dehydration Toilets in Kenya. *Journal of Water, Sanitation and Hygiene for Development*, 2(3), 182-189. **SCI-IF-0.977**.

### Book Chapters

23. Rahman, M., **Uddin, S.M.N.**, Rahman, M.M. and Yokoyama, K. (2017) Impact of Cyclone SIDR on Rural Community in Bangladesh: A Socio-economic Analysis. Nova Science Publishing.

### Journal Papers (Submitted/Under Review)

1. **Uddin, S.M.N. et al.** Innovative composting methods to heighten resource recovery from human feces without risk to human or environmental health. Critical Reviews in Environmental Science and Technology. (Submitted)
2. **Uddin, S.M.N.** and Gutberlet, J. Health and livelihoods of waste pickers in Dhaka, Bangladesh, *Journal of International Development*. (Under Review)

### Other Publications

1. **PhD Thesis:** Sustainable Sanitation Technologies for Vulnerable Peri-Urban Communities in Ulaanbaatar, Mongolia. University of Science and Technology Beijing (USTB), China. **2015**
2. **Master's Thesis:** Ecological Sanitation in Low Income Countries: Assessment of Social Acceptance and Scope of Scaling up of UDDTs, study area Bangladesh and Kenya', Nagoya University, Japan. **2011**
3. **M.Sc. Thesis:** Assessment of soil salinity and its impact on agriculture after the Cyclone SIDR. IWMF, Bangladesh University of Engineering and Technology (BUET), Bangladesh. **2009**
4. **Diploma Project:** Impact of Fish-pans on livelihood of fisherman communities in Talim Island in Laguna the Bay, Philippines. **2009**
5. **Undergraduate Research:** Degradation of Water Quality of Buriganga River due to Industrial and Sewerage Pollution, National University, Bangladesh. **2005**

### Book Review and Proofs

1. Rural resources for self-employment by Mosharref Hossain Bhuyan, Technology Development and Implementation Agency (Techno DIA), Dhaka. (In Bangla Language)
2. Rivers in Bangladesh by Mosharref Hossain Bhuyan, Technology Development and Implementation Agency (Techno DIA), Dhaka. (In Bangla Language)

### Recent Public and Community Talks

1. Health hazards and livelihoods of waste pickers: towards inclusive waste management, Seminar of Center for Global Studies, University of Victoria, April 2019, Canada.
2. Social exclusion, marginalization and vulnerabilities in WASH and Health, Seminar of Center of Teaching and Scholarship, Sep 2018, AUW, Bangladesh
3. Social story of a multi-cultural toilet, IDEAFEST-Ideas That Can Change Everything, March 5-10, University of Victoria, Canada
4. Sustainable sanitation technologies in the coldest capital in the world, Sustainable Seminar, Green Civil Engineering, University of Victoria. March 2018, Canada.
5. Vulnerable global populations in water, sanitation and hygiene, Community Talk of UVic's Speakers Bureau, St. Michaels University School, December 2017, Victoria, Canada.

### Conference Proceedings, Presentations, Posters

1. **Uddin, S.M.N.** and Gutberlet, J. Waste pickers in Dhaka city, Bangladesh: a sustainable livelihoods and health assessment, International Conference of Canadian Association of Geographers, March 2019, Victoria, Canada.
2. **Uddin, S.M.N.** and Gutberlet, J. Livelihoods and health status of waste pickers in Dhaka, Bangladesh, Seminar, Center for Asia Pacific Initiatives, University of Victoria, Canada. March 2018.
3. **Uddin, S.M.N.** Rapid assessment of health and livelihoods status of waste pickers in Dhaka, Bangladesh, Keynote Speaker, Workshop on Waste and Waste Pickers, Stamford University Bangladesh, August 24, 2017, Dhaka, Bangladesh.
4. **Uddin, S.M.N.** and Gutberlet, J. Informal Recyclers in the Long Winter Cold Country with Fast- Growing Economy, Research Seminar, Center for Asia Pacific Initiatives, University of Victoria, March 13, 2017, Victoria, BC, Canada.
5. **Uddin, S.M.N.** Waste and lives of waste pickers in Mongolia, International Interactive Workshop on Waste and Lives of Waste Pickers in Mongolia, Key Note Speaker and Co-Organizer, October 7, 2016, Royal International University, Ulaanbaatar, Mongolia.
6. **Uddin, S.M.N.**, Informal recyclers in the coldest capital in the world (Ulaanbaatar, Mongolia), International Symposium on Waste Management, October 2016, Ulaanbaatar, Mongolia.

7. **Uddin, S.M.N.** et al. Degradation of river water quality around Dhaka City, Bangladesh. International Environmental Technology Conference, Beijing, October 2016, China.
8. Cheng, S., Zhou, X., **Uddin, S.M.N.**, Li, Z. and Mang, HP. Why China needs the 'Toilet revolution'? 13th IWA Specialized Conference on Small Water and Wastewater Systems & 5th IWA Specialized Conference on Resources-Oriented Sanitation, Athens, Greece, 14- 6 Sep 2016.
9. **Uddin, S.M.N.** Sustainable sanitation technologies for vulnerable peri-urban communities in Ulaanbaatar, Mongolia, International Conference on 'WASH Innovations and Future Scenarios for Mongolia, 22-23 June 2015, Ulaanbaatar, Mongolia.
10. **Uddin S.M.N. et al.** Fecal sludge management in Mongolia: Different approaches to recover resources and reduce risks. 7<sup>th</sup> World Water Forum, 12-17 April, Daegu & Gyeongbuk, Rep. of Korea 2015. Presentation and Panelist.
11. **Uddin, S.M.N.**, Li, Z., Mang, HP, Lapegue, J. Sustainable sanitation for vulnerable peri-urban Mongolia: Ways to reduce WASH-borne hazards and vulnerability. The 2<sup>nd</sup> IWA Malaysia Young Water Professionals Conference 2015, 17-20 March 2015, Kuala Lumpur, Malaysia.
12. **Uddin, S.M.N.**, Li, Z., Lapegue, J., Adamowski, J.F. Socio-cultural capital and corporate WASH responsibility: Ways towards sustainable water supply and sanitation, 1<sup>st</sup> Specialist Conference on Municipal Water Management and Sanitation in Developing Countries-From Toilet to Source-Accelerating Uptake of Sustainable and Integrated Wastewater Management Solutions. 2-4 December 2014, AIT, Bangkok, Thailand.
13. **Uddin, S.M.N.** Socio-cultural and legal aspects of fecal compost: Global practices and practical case from Mongolia, WASH & FSL International Conference, 22-26 September 2014, Machakos, Kenya.
14. **Uddin, S.M.N.**, Rahman, M. M. and Hussain, M. A. Degradation of river water quality around Dhaka City: An anthropogenic disaster. 2014 Bangladesh Summit for Sustainable Development, 16-19 August, Dhaka, Bangladesh.
15. **Uddin, S.M.N.** Li, Z., Gaillard, J. C., Mang H.P., Lapegue, J., and Hridi, S. M. Water, sanitation and hygiene for homeless and nomadic people: perspectives from Bangladesh and Mongolia. 2014 Bangladesh Summit for Sustainable Development, 16-19 August, Dhaka, Bangladesh.
16. Jubayer, A., **Uddin, S.M.N.** and Ergun, S. Water, sanitation and hygiene for small shopkeepers: A perspective from Bangladesh. 2014 Bangladesh Summit for Sustainable Development, 16-19 August, Dhaka, Bangladesh.
17. **Uddin, S.M.N.** Li, Z. and Lapegue, J. Exploring funding for sustainable sanitation in Mongolia: Perceptions from communities and stakeholders. 37<sup>th</sup> WEDC International Conference on Sustainable Water and Sanitation Services for All in a Fast Changing World, 15-19 September, 2014, Hanoi, Vietnam.
18. **Uddin, S.M.N.**, Li, Z., Ibrahim, M. B., Mang, HP, Lapegue, J., Cheng, S. (2014) A perspective evaluation of 'Closed-loop-sanitation-system' in a country with cold climate: a case from Mongolia. 12<sup>th</sup> IWA Conference on Small Water & Wastewater Systems & 4<sup>th</sup> Specialized Conference on Resource Oriented Sanitation 2-4 November 2014, Muscat, Sultanate of Oman.
19. **Uddin, S.M.N.**, Li, Z., Mang, H. P., Adamowski, J. F, Ulbrich, T., Ryndin, R., Norvanchig, J., and Cheng, S. Greywater treatment in peri-urban nomadic communities: A case study on 'greenhouse system' in Ulaanbaatar, Mongolia. 12<sup>th</sup> IWA Conference on Small Water & Wastewater Systems & 4<sup>th</sup> Specialized Conference on Resource Oriented Sanitation 2-4 November 2014, Muscat, Sultanate of Oman.

20. Cheng, S., Li, Z., Mang, HP., **Uddin S.M.N.** and Huba, EM. Resource oriented sanitation in rural China: Strategy and implementation. 12<sup>th</sup> IWA Conference on Small Water & Wastewater Systems & 4<sup>th</sup> Specialized Conference on Resource Oriented Sanitation 2-4 November 2014, Muscat, Sultanate of Oman.
21. Cheng, S., Li, Z., Mang, HP., Huba, EM. and **Uddin S.M.N.** What could be China give to and take from other countries for development of biogas industry? Lessons learned from each other. International Conference on Progress in Biogas III, 10-11 September 2014. Haus der Wirtschaft- Stuttgart, Germany.
22. **Uddin, S.M.N.**, Li, Z., Mang, H. P., Adamowski, J. F, Ryndin, R., Ulbrich, T. and Lapegue, J. (2014) An assessment of the feasibility of Household Greywater Treatment in water stressed regions in cold climates using 'Ice-Block Units': A case in Ulaanbaatar, Mongolia. IWA 14<sup>th</sup> International Conference on Wetland Systems for Water Pollution Control, 12-16 October 2014, Shanghai, China.
23. **Uddin, S.M.N.**, Li, Z. Mang, H. and Lapegue, J. (2014) Sustainable sanitation towards eco-city development. Second Symposium on Urban Mining, 19-21 May 2014, Bergamo, Italy.
24. **Uddin, S.M.N.**, Li, Z. and Mang, H. P. (2013) Progress on sustainable sanitation for vulnerable peri-urban population in Ulaanbaatar, Mongolia. WASH Forum, Action Contre la Faim (ACF) Mongolia, 26-27 September 2013, Ulaanbaatar, Mongolia.
25. Ibrahim, B. M, **Uddin, S.M.N.**, Li, Z., and Mang, H.P. (2013) Human excreta collection, treatment (composting) and use in peri-urban ger areas of Ulaanbaatar, Mongolia. WASH Forum, Action Contre la Faim (ACF) Mongolia, 26-27 September 2013, Ulaanbaatar, Mongolia.
26. Ibrahim, B. M., **Uddin, S.M.N.**, Li, Z., and Mang, H. P. (2013) ACF Eco-Toilets: A sustainable way to improve sanitation ger areas of Ulaanbaatar, Mongolia. WASH Forum, Action Contre la Faim (ACF) Mongolia, 26-27 September 2013, Ulaanbaatar, Mongolia.
27. Ibrahim, B. M., Li, Z., Mang, H. P., Zhang, Y. and **Uddin, S.M.N.** (2013) Night soil composting as common approach to sustainable sanitation: A review. 2013 Beijing International Environmental Technology Symposium, 20-23 October, Beijing, China.
28. **Uddin, S.M.N.**, Li, Z., Gaillard, J.C., Mang, H.P., Huba, E.M., Tedoff, P.F., Lapegue, J, Kummel, O. and Rheinstein, E. (2013) WASH-Borne vulnerability in Mongolia. 2013 Beijing Int. Environmental Technology Symposium, 20-23 October, Beijing, China.
29. **Uddin, S.M.N.**, Li, Z., Mang, HP., Ulbrich, T., Schubler, A., Rheinstein, E. and Huba, E.M., (2013). Opportunities and challenges of greywater treatment and reuse in peri-urban ger areas of Ulaanbaatar, Mongolia. 11<sup>th</sup> IWA Conference on Small Water & Wastewater Systems and Sludge Management, 28-30 October, 2013, Harbin, China.
30. Diang, N., Li, Z., Zhou, X., Hu A., Bai, X. and **Uddin, S.M.N.** (2013) Feasibility assessment of LID concept for stormwater management in China through SWOT analysis. 16<sup>th</sup> IRCS Conference & International Symposium on Rainwater Utilization, 1-4 July 2013, Beijing, China.
31. **Uddin, S.M.N.**, Li, Z., Mang, H. Huba, E.M., Lapegue, J. and Eyrard, J. (2013). Sustainable sanitation for vulnerable peri-urban population in Mongolia: An introduction of a multi-lateral cooperation project. Proceedings of 12th JADE Conference, Japan Association of Drainage and Environment, 9 November 2013 Tokyo, Japan.
32. **Uddin, S.M.N.**, Li, Z., Mang, H. Huba, E.M. and Lapegue, J. (2013). A holistic approach to integrate safe water supply and sustainable sanitation system: a SWOT analysis. International Conference on Water Research, 20-23 January 2013, Singapore.
33. Cheng, S., Li, Z., Mang, H., **Uddin, S.M.N.**, Zhou, X. and Huba, E. (2012). Dissemination of decentralized wastewater treatment system in rural China: opportunities and challenges. Proc. Of



- International Conference on Environmental Science and Technology 2012, 25-29 June, 2012, Houston, Texas, USA. Volume 1. George Sorial and Jihua Hong, Eds. American Science Press, Houston, USA, pp 99-105, 2012. ISBN: 9780976885351
34. **Uddin, S.M.N.** 2012. Effective Communication Before Networking: a Proposal of '5-TIER Networking System' for Global Environmental Leaders. International Forum on Global Environmental Leaders, November 2012, Nagoya, Japan.
  35. **Uddin, S.M.N.**, Muhandiki, V.S. Fukuda, J. Nakamura, M. and Sakai, A. (2011) Ecological sanitation in low income countries: assessment of social acceptance and scope of scaling up. 35th WEDC International Conference, July 2011, Loughborough, UK.
  36. Muhandiki V.S., **Uddin, S.M.N.**, Nakamura, M. and Sakai, A. (2011). Adopting Sustainable Sanitation Technologies in Low Income Countries: Case Study on Ecological Sanitation in Kenya. The 4th IWA-ASPIRE Conference on Toward Sustainable Water Supply and Recycling Systems, 2 - 6 October 2011, Tokyo, Japan.
  37. **Uddin, S.M.N.**, Muhandiki, V.S., Cheruiyot, C. K. and Nakamura, M. (2011) Replication of UDDTs in Lake Victoria Basin: A way to improve public health and reduce water pollution. Proceedings of 14<sup>th</sup> World Lake Conference, October 31 October- 4 November, Austin, Texas, USA.
  38. **Uddin, S.M.N.**, Muhandiki, and Sakai, A., Mamun, A. A. and Hridi, S. M. (2011) Assessment of Socio-cultural and Religious Acceptance and Replication of Urine Diversion Dehydration Toilets in Rural Muslim Communities. Proceedings of 11th JADE Conference, Japan Association of Drainage and Environment, 12 November 2011 Osaka, Japan.
  39. **Uddin, S.M.N.**, Ansari, M.S., Kumar, U. and Muhandiki, V.S. (2010) Assessment of Potentiality and Social Acceptance of PSF and RWHs in Southwest coast of Bangladesh. EcoBalance 2010, International Conference on EcoBalance, Tokyo, Japan.

### Peer Reviewing

International Research Journal of Public and Environmental Health, Arabian Journal of Business and Management Review, African Journal of Environmental Science and Technology, Science of The Total Environment, Water, Detritus, Sustainability.

## PROFESSIONAL EXPERIENCE

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### Assistant Professor

**Aug 2018- Present**

*Department of Environmental Sciences, Asian University for Women, Bangladesh*

### Contributions and Achievements

- Sole Instructor of ENVS 3008: Water Management, ENVS 3003: Ecology and ENVS 4003: Waste management.
- Created and delivered four hours of weekly lectures and met with students outside of the class for career development and other academic help.
- Successfully applied innovative and participatory teaching techniques (e.g. Small-To-Large Group Discussion, Student-led Discussion Leader) to encourage students in thinking outside the box.
- Produced and graded all assignments, exams, concept notes, and research projects.
- Secured internal (e.g. Faculty Research Grant) and external (e.g. United Board, USA) research grants on water, sanitation and waste management.
- Collaborated with national and international key experts and professors in the fields of water, environment, and geography for research and teaching.

- Organized International Conference on Natural Science and Technology (ICNST'19) and hold a Co-Chair position to attract national and internal scientists and experts and to promote 'science for women' in Asia.
- Organized a range of events and discussions related to World Water Day, World Environment Day and developed collaborative ideas on global water security.
- Supported in obtaining internships/jobs for students and alumni for working on water and health issues.
- Developed research grant proposals and submit them on time.
- Contributed to various academic and non-academic committee as an active member such as Ethical Selection Committee, Student Experience Committee and other research related committee.
- Created a Multi-Disciplinary Grant (MDG) Committee for the first time at AUW to solve global water and environmental issues.
- Contributed in designing various activities of Youthmappers Club, Chapter of Texas Tech University, USA, as an AUW Advisor.
- Published scholarly articles on high ranked indexed journals such as *Environment International* (**IF-7.292**); *Journal of Environmental Management* (**IF-4.005**); *Water* (**IF-2.069**).

**Visiting Research Associate****Sep 2018-Present***Community-based Research Laboratory, Department of Geography, University of Victoria, Canada****Contributions and Achievements***

- Co-Investigated multiple research projects on water, waste and sanitation in South Asia, Central Asia, East Africa, South and North America.

**Post-Doctoral Fellow****March 2016-Aug 2018***Community-based Research Laboratory, Department of Geography, University of Victoria, Canada****Contributions and Achievements***

- Executed research on health hazards and waste governance in Mongolia and Bangladesh in collaboration with Prof. Jutta Gutberlet.
- Contributed (as an active member) regularly to the UVic's Global Health Discussion Group organized by Center for Global Studies (CFGS).
- Contributed to develop innovative proposal and secured funding from Center for Asia Pacific Initiatives (CAPI) at UVic.
- Tutored students (both graduate and undergraduate) based on their research and field activities.
- Coordinated international research projects in Mongolia, China, and Bangladesh.
- Recruited and trained Research Assistants under the research projects in Bangladesh and Mongolia for field activities (e.g. survey, interviews, workshops).
- Collaborated with international experts, researchers and counterparts for successfully completing the research projects.
- Organized national and international seminars/workshops on waste recycling and reuse in Bangladesh, Canada, and Mongolia.
- Presented research findings at national and international seminar, conferences, and workshops.
- Published scholarly articles on high ranked indexed journals such as *Journal of Cleaner Production* (**IF-5.715**); *International Journal of Occupational and Environmental Health* (**IF-1.195**); *International Journal of Water Resources Development* (**IF-2.088**); and *Resource, Conservation and Recycling* (**IF-5.120**).

**Sessional Lecturer****Jan 2017-Present**

*Department of Geography, University of Victoria, Canada*

***Contributions and Achievements***

- Designed innovative courses on Global water, sanitation, and hygiene (WASH) for development, Urban WASH, Urban Water Security, and Global Homelessness.
- Sole Instructor of GEOG391: Intro to Global WASH for Development (undergraduate and graduate), GEOG 371: Water Resources Management
- Created and delivered three hours of weekly lectures and meet with students outside of the class for career development and other academic help.
- Successfully applied innovative teaching techniques (e.g. Small-To-Large Group Discussion, Student-led Discussion Leader) to encourage students in thinking outside the box.
- Produced and graded all assignments, exams, and country water diagnosis research projects.
- Collaborated with national and international key experts and professors to deliver guest lectures.
- Organized events and discussions related to World Water Day and developed collaborative posters on global water supply.
- Supported students in obtaining internships/jobs for working on water issues.
- Organized online lectures to develop online sharing platform for students.

**Specialist Instructor**

**March 2016-Present**

*Department of Geography, University of Victoria, Canada*

***Contributions and Achievements***

- Instructed GEOG 218: Social and Cultural Geography (Lab Section), GEOG 327: Research Methods in Human Geography (Lab Section), GEOG 370: Hydrology (2 Lab Sections).
- Supported students in the GIS labs to complete their assignments successfully.
- Organized effective group discussions (e.g. Small-To-Large Group Discussion, Student-led discussion leader, debates)
- Organized discussions with Group Leaders to enhance their creative thinking and inclusiveness.
- Produced and graded all lab assignments, exams, presentations, and papers.
- Organized workshops on research proposal writing.

**Visiting Assistant Professor**

**Summer 2018**

*Department of Environmental Science, Asian University for Women, Bangladesh*

***Contributions and Achievements***

- Sole Instructor of ENVS 3009: Urban Water, Sanitation, and Hygiene and ENVS3010: Environmental Health.
- Developed AUW multi-disciplinary approach of global water, sanitation and hygiene improvement.
- Created AUW global WASH Research Team and trained them to become global leaders in this field.
- Motivated Public Health students to think outside the box and to work for improving global environmental health condition.

**Director (Program & Research)**

**Sep 2015-Present**

*Bangladesh Environmental Research Foundation, Dhaka, Bangladesh*

***Contributions and Achievements***

- Managed international research project on bio-energy funded by The World Bank.

- Conducted field and lab-based tests of pre-designed biogas plants in Bangladesh context.
- Co-Investigated various factors in increasing biogas production efficiency.
- Collaborated with various national and international counterparts and stakeholders for successfully implementing the project.
- Developed other research and development program concepts to secure funding.
- Contributed to data analysis and technical report writing.

### **Research Project Manager**

**March 2012-Aug. 2015**

*Action Contre La Faim (ACF) International, ACF Mongolia and University of Science and Technology Beijing (USTB), China*

#### ***Contributions and Achievements***

- Developed research methodologies and conducted field/lab works at ACF water, sanitation, health, and livelihood projects in Afghanistan, Bangladesh, China, Kenya, Mongolia, and Philippines.
- Designed and tested a range of technologies such as household wastewater treatment technologies, fecal sludge treatment technologies, eco-toilets for eliminating the fecal contaminants and emerging pollutants.
- Supervised and tutored 10 master's students and interns under the research project on various topics such as WASH, Wastewater Treatment, Sustainable Sanitation, Fecal Sludge Treatment, Social Marketing.
- Published over 30 peer-reviewed journal articles, international conference proceedings, technical guidelines, manuals, and project reports on water and environment related topics.
- Ensured scientific investigation approach and output: scientific production, exchange with experts, analyses similar projects and topic related studies.
- Ensured budget follow up; liaise with ACF Administration Department in Ulaanbaatar and Paris.
- Transmitted timely relevant information to ACF (in Ulaanbaatar and Paris) gathered within scientific investigation and yearly presentation of progress to ACF in Paris.
- Contributed to ACF/USTB national and international workshops in France, Mongolia, China, Kenya, Philippines, and Afghanistan to disseminate the knowledge produced under the research projects.
- Collaborated with international key experts, researchers and actors from Harvard School of Public Health, McGill University, The University of Auckland, University of Victoria and so on.

### **Research Trainee**

**Jan 2011- June 2015**

*The University of Auckland, New Zealand and McGill University, Canada.*

#### ***Contributions and Achievements***

- Conducted research on water, wastewater and eco-sanitation in collaboration with Prof. Jan F Adamowski from the Center of Integrated Water Resources Management at McGill University in Canada.
- Conducted several scoping studies in water and health hazards in collaboration with Prof. JC Gaillard from the School of Environment at The University of Auckland in New Zealand.
- Published scholarly articles (scoping studies for the first time) on high ranked journal such as *Habitat International (IF-3.000)*; *Journal of Water and Health (IF-1.352)*

### **Environmental Specialist**

**Oct 2011 – Feb 2012**

*Center for Environmental and Geographic Information Services (CEGIS), Bangladesh*

#### ***Contributions and Achievements***

- Conducted real field Initial Environmental Assessment (IEA), Environmental Impact Assessment (EIA) and Social Impact Assessment (SIA) of various projects in Bangladesh.

- Contributed to proposal and report writing on EIA and SIA
- Developed national and international network in the fields of water and environment.
- Developed project management and team leading skills.
- Increased capacity of budget preparation and allocation.

**Research Assistant**

**Jan 2007 – Dec 2008**

*Institute of Water and Flood Management, Bangladesh University of Engineering and Technology, Bangladesh*

***Contributions and Achievements***

- Conducted research on disaster management and community health in collaboration with Prof. M. Asad Hussain.
- Executed field research and other activities for various international research groups from Bielefeld University- Germany, JSCE-Japan, Kyoto University-Japan, ICHARM-Japan, University of Oxford, UK, IIT-India and played leading role in the field investigations.
- Collected water and soil samples and tested in the laboratory at the Institute of Water and Flood Management of the Bangladesh University of Engineering and Technology.
- Managed substantial number of project staff (over 300) under a livelihood research project in Bangladesh.
- Produced technical reports and research papers on disaster and water.

**Field Coordinator**

**Nov 2007 – May 2008**

*Japan Asian Association and Asian Friendship Society (JAFS), Bangladesh*

***Contributions and Achievements***

- Managed large-scale development and research projects on ‘relief and rehabilitation for Super Cyclone SIDR affected population’ in Bangladesh in 2007.
- Developed project management and coordination skills.
- Supported to thousands of target people and marginalized groups affected by Cyclone SIDR.

**Program Officer**

**Jan 2006 – Dec 2006**

*Jhanjira Samaj Kollyan Sanghstha (JSKS), SHOUHARDO USAID Funded Project, CARE Bangladesh*

***Contributions and Achievements***

- Executed dozens of community consultations in the project areas through Participatory and Community-based approaches.
- Conducted feasibility study and need assessment of target groups (e.g. lactating and pregnant mother) through workshops, yard meeting, mass gathering, awareness campaign, focus group discussion, and baseline survey.
- Assessed vulnerability of hard-to-reach people to natural and human-induced hazards, water- borne hazards.
- Supplied appropriate foods to poor lactating and pregnant mothers for their better health.
- Supervised program staff and established networks and linkage with other counterparts to ensure efficient and effective usage of program assets and resources.
- Developed project management, staff supervision and evaluation skills.
- Improved ability to conduct root-level training, community consultation and community participation.
- Increased capacity of proper documentation and report writing skills.

**Program Coordinator****Mar 2002 – Dec 2005***Technology Development and Implementation Agency (Techno DIA), Bangladesh***Contributions and Achievements**

- Designed and implemented various research and development projects on water, health, environment, education, bio-gas and composting.
- Developed various training and education materials and executed them effectively.
- Contributed in writing a book on ‘Rural resources for self-employment (>500 pages)’ in Bangla Language.
- Developed project management and coordination, staff supervision and evaluation skills.
- Expanded knowledge on internal and transboundary water networks, socio-environmental, political, and cultural landscape of Bangladesh.
- Increased capacity of proper documentation, book and report writing skills.

**POSTGRADUATE AND UNDERGRADUATE SUPERVISION****Postgraduate Supervision (M.Sc./M.A./M.Eng.) (Funded by Action Contre la Faim International France) (Graduation Completed)**

<i>Name</i>	<i>Topics</i>	<i>Institution</i>	<i>Role</i>
Ibrahim Babatunde	Fecal sludge composting in cold climate region	USTB, China	Supervisor
Shijirtuya Batjargal	Composting human feces in the coldest capital in the world	Mongolian University of Science and Technology	Supervisor
Tobias Ulbrich	Greywater treatment and reuse in cold climate	Technical University Berlin	Supervisor
Javzansuren Norvanchig	Greywater treatment and reuse cold climate	University of the Humanities, Mongolia	Supervisor
Roman Ryndin	Greywater treatment and reuse in cold climate	Hochschule für Wirtschaft und Umwelt Nuertingen-Geißlingen	Supervisor
Annkathrin Tampe	Economic and financial analysis of sustainable sanitation	Martin-Luther-Universitaet Halle-Wittenberg	Supervisor
Ariunbileg Sharavsambuu	Fecal composting marketing in Mongolia	USTB, China	

**Undergraduate Supervision (Funded by Asian University for Women) -Current Students**

Sinthia Arefeen	Rural water technologies in Bangladesh	Asian University for Women	Supervisor
Mehereen Akhter	Indigenous water security challenges in rural Bangladesh	Asian University for Women	Supervisor
Wasundara Doradeniya	Water and sanitation security for homeless people in India	Asian University for Women	Supervisor
Zannatul Munmun	Knowledge and practice of water and sanitation in rural Bangladesh	Asian University for Women	Co-Supervisor
Dorji Wangmo	Food waste management system in Bhutan	Asian University for Women	Supervisor

Sidratun Chowdhury	Nur	Quantification of microbial risks to human health caused by waterborne viruses and bacteria in an urban slum, Bangladesh	Asian University for Women	Supervisor
Natha S Ramees		Impact of Rohingya Refugee crisis on land use and water resources in Bangladesh	Asian University for Women	Co-Supervisor
Nafisa Islam		Impact of Rohingya Refugees on biodiversity loss in Bangladesh	Asian University for Women	Supervisor
Kinely Zam		The residential energy futures of Bhutan	Asian University for Women	Supervisor
Batool Behman		Health and environmental impacts of hospital waste in Bangladesh	Asian University for Women	Supervisor

## AWARDS AND ASSOCIATIONS

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- Guest Editor, Special Issue of Sustainable Waste Technology and Management, *Sustainability Journal*, MDPI **2019-Present**
- Editor, Mathew Journal of Pediatrics **2015-Present**
- ACF Post-Doctoral Fellowship, Action Contre la Faim International, France. **2017**
- Post-Doctoral Fellowship, SSHRC Insight Development Grant, University of Victoria. **2016-2017**
- 1st Prize of International Excellence Student Award from USTB, China. **2014**
- Nominated for President Gold Medal 2015, USTB, China. **2015**
- Ph.D. Outstanding Dissertation Award by USTB, China. **2015**
- Ambassador (China)-WEDC, Loughborough University, UK. **2012- Present**
- Chairman, Global Environmental Leaders Association, Nagoya University, Japan. **2012-Present**
- Winner, Photo Contest, Nagoya University Global Environmental Leaders Program, Japan. **2012**
- International Ph.D. Research Scholarship from ACF International, France. **2012-2015**
- Japanese Government Scholarship (Monbukagakusho). **2009-2011**
- Master's Thesis Fellowship from Japan Asian Association & Asian Friendship Society (JAFS) for a thesis at IWFM-BUET, Bangladesh. **2007-2009**
- Scholarship from Japan Asian Association & Asian Friendship Society (JAFS) for Studying International Diploma in Community Development at Asian Social Institute-Philippines. **2009**
- Gold Medal from Sheik Burhanuddin College for 1st class 2nd rank in B.Sc. honors merit list, National University, Bangladesh. **2005**

## SKILLS AND EXPOSURES

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**IT Skills:** MS Office (MS Word, MS Excel, MS PowerPoint), SPSS, NVivo, Q-GIS.

**Other skills:** Participatory approaches, oral presentation, quick rapport building with any community.

**Language proficiency:** Native: Bengali, Fluent-English, Hindi and Urdu, Learner of Japanese and Chinese languages.

**International Exposures:** Asia- Afghanistan, China, India, Japan, Malaysia, Philippines, Thailand, Singapore, Mongolia, South Korea. **Africa-** Kenya **Europe/UK-** Italy, France, United Kingdom, Sweden. **America-** Canada

## TRAINING AND ONLINE COURSES RECEIVED

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- **Planning and Design of Sanitation Systems and Technologies** (6 Weeks) 2014  
The Ecole Polytechnique Fédérale De Lausanne in Collaboration With Sandec/Eawag
- **HYDRUS Training** (2 days) 2014  
Tongji University, Shanghai, China
- **Training Course in Water Quality and Sanitation** (15 days) 2012  
Chinese Academy of Science, Beijing, China
- **Water Equity and Gender** (2 days) 2009  
IWFM, BUET, Bangladesh
- **Mother and Child Health & Nutrition (MCHN) food distribution** (2 days) 2006  
care Bangladesh
- **Community Consultation training using PRA tools** (13 days) 2006  
care Bangladesh
- **Participatory Rural Appraisal (PRA) training** (8 days) 2006  
Village Education Resources Center, Bangladesh
- **Early Child Care & Development (ECCD)** (4 days) 2006  
JSKS, Plan International, Bangladesh
- **Human Resource Management (HRM)** (13 days) 2005  
Bangladesh Small & Cottage Industries Corporation (BSCIC)

## REFEREES

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On Request

**Sayed Mohammad Nazim Uddin**