
CURRICULUM VITAE of Prof. Dr. Mohammad Saiful Islam Bhuiyan

Address: Dr. Mohammad Saiful Islam Bhuiyan

Professor

Department of Soil Science

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Education:

2022	<p>Postdoc Institute of Agriculture & Life Science (IALS), Gyeongsang National University, Jinju, South Korea Research Title: <i>Developing smart management strategy of organic matters to mitigate greenhouse gas emissions via life cycle assessment in rice cropping system.</i> Research period: 2019-11-01~2021-12-31</p> <ul style="list-style-type: none">• Expertise on measuring GHGs using GC-MS• Expertise on application of simulation model such as DNDC and DSSAT• Expertise on application of meta- analysis through R software
2016	<p>PhD Graduation in Sustainable Agriculture School of Agricultural and Wine Sciences, Faculty of Science, Charles Sturt University Wagga Wagga, NSW 2650, Australia. Thesis title: <i>Management of dryland salinity in Central-west New South Wales, Australia: remediation trials using salt-tolerant plants.</i></p> <ul style="list-style-type: none">• Expertise on identification of organic and inorganic compounds from the plant extracts using UV/visible, AAS, ICP-OES, & HPLC• Expertise on using of photosynthetic system such as LI-COR• Expertise on using of Electromagnetic machines such as EM38• Expertise on research methodology and statistical methods
2005	<p>Master of Science in Soil Science (by research) Department of Soil Science, Sher-e-Bangla Agricultural University, Dhaka-1207, Bangladesh. Thesis title: <i>Effect of vermicompost and NPK on the growth, chemical composition and yield of wheat.</i></p> <ul style="list-style-type: none">• Soil Chemistry• Soil Fertility and Plant Nutrition• Soil Organic Matter• Design of Experiments• Advanced Crop Production Technology• Environments and Soil Pollution
2003	<p>Bachelor of Science in Agriculture (Honours) Faculty of Agriculture, Sher-e-Bangla Agricultural University, Dhaka-1207, Bangladesh.</p> <ul style="list-style-type: none">• Soil Science• Biochemistry• Crop Botany• Agronomy• Horticulture• Entomology• Genetics and Plant Breeding• Plant Pathology

Research Interests:

My research is focused on **Establishment of soil management strategy** (1) For increasing carbon sequestration (2) For suppressing greenhouse gas emission from arable land, and (3) For restoring problem land.

Professional experience:

a) Academic Position:				
Designation	From	To	Appointed Organization	Major responsibilities
Professor	06-11-2019	till to date	Sher-e-Bangla Agricultural University (SAU)	Teaching and Research
Associate Professor	06-11-2015	05-11-2019	SAU	Teaching and Research
Assistant Professor	06-11-2008	05-11-2015	SAU	Teaching and Research
Lecturer	05-11-2006	05-11-2008	SAU	Teaching and Research
b) Administrative Position:				
Chairman	01-03-2023	Till to date	Department of Soil Science	Coordinating and interviewing all classes, examinations, and research
Provost	12-12-2017	30-11-2019	Kabi Kazi Najrul Islam Hall, SAU	Managing 1000 students as hall-super
Assistant Provost	22-06-2009	30-06-2012	Sher-e-Bangla Hall, SAU	Managing 750 students as an assistant hall-super

Research Projects:

SL. No.	Position	Title	Year	Country/Source of fund
01.	Principle investigator	Ex-situ assessment of nano urea on <i>Vigna radiata</i> under moisture stress condition.	2023-24	Ministry of Science and Technology, Government of the People's Republic of Bangladesh.
02.	Principle investigator	Soil properties-organic carbon fractions changing as the indicators of the effect of climate change on soil health.	2018 - 19	Ministry of Science and Technology, Government of the People's Republic of Bangladesh.
03.	Principle investigator	Effect of biochars and mineral fertilizer on soil fertility and yield of <i>Lycopersicon esculentum</i> .	2018 - 19	Sher-e-Bangla Agricultural University Research System (SAURES), Bangladesh.
04.	Principle investigator	Salinity restoration assessment between salt-tolerant and non-tolerant rice varieties.	2017 - 18	Ministry of Science and Technology, Government of the People's Republic of Bangladesh.
05.	Principle investigator	An assessment of grain protein and yield performance of <i>Zea mays</i> under foliar spraying of urea.	2017 - 18	Sher-e-Bangla Agricultural University Research System (SAURES), Bangladesh.
06.	Research student	Phytoremediation Options for Dryland Salinity in the Central West	2012 - 16	New South Wales, Australia.

		of NSW.		
	Associate investigator	Arsenic in potato soils: A threat for sustainable potato production in Bangladesh causes and remediation.	2011 - 12	Ministry of Science and Technology, Government of the People's Republic of Bangladesh.

Course conduct:

Undergraduate level:

SOIL-105: Introductory Soil Science

SOIL-106: Elementary Soil Experiments

SOIL- 255: Soil Classification, Survey and Conservation

SOIL- 256: Field and Laboratory Study of Soil

SOIL- 303: Soil Physics and Soil Chemistry

SOIL- 403: Soil Fertility and Soil Microbiology

SOIL- 404: Experiments on Plant Nutrition and Soil Microbiology

SOIL- 481: Soil Pollution and Environmental Degradation

Postgraduate level (Masters):

SOIL 509: Environments and Soil Pollution

SOIL 503: Soil Microbiology

SOIL 504: Soil Fertility and Plant Nutrition

SOIL 506: Soils of Bangladesh

SOIL 508: Soil Organic Matter

SOIL 511: Biofertilizer Technology

SOIL 512: Soil and Water Conservation

AGRO 506: Crop Physiology and Stress Agronomy

Postgraduate level (PhD):

Soil 608: Greenhouse gases, Pesticide and Environment

Student Supervision:

Supervising three master's student and co-supervising one PhD student on their full research work.

Publications:

Journal articles

1.	Rahman MM, Bhuiyan MSI , Tareq SM. 2023. Effects of Salinity on Cadmium Availability in Soil and Fruits of Tomato (<i>Lycopersicon Esculentum</i> Miller). Bangladesh Journal of Botany. 52: 315-321.
2.	Bhuiyan MSI , Rahman A, Loladze I, Das S, Kim PJ. 2023. Subsurface fertilization boosts crop yields and lowers greenhouse gas emissions: A global meta-analysis. Science of The Total Environment. 876: 162712.
3.	Rahman MM, Tareq SM, Bhuiyan MSI , Akand MSH, Shamsuzzaman SM. 2022. Cadmium Content in Soil and Tomato (<i>Lycopersicon Esculentum</i> Miller) Around Industrial Areas of Bangladesh. Bangladesh Journal of Botany. 51 : 729-736.
4.	Chae HG, Song HJ, Bhuiyan MSI , Kim PJ, Lee JG. 2022. Unexpected high suppression of ammonia volatilization loss by plastic film mulching in Korean maize cropping system. Agriculture, Ecosystems & Environment. 335: 108022.
5.	Das S, Jena SN, Bhuiyan MSI , Kim GW, Kim PJ. 2022. Mechanism of slag-based silicate fertilizer suppressing methane emissions from paddies. Journal of Cleaner Production. 373:133799.
6.	Kim GW, Lim JY, Bhuiyan MSI , Das S, Khan MI, Kim PJ. 2022. Investigating the arable land that is the main contributor to global warming between paddy and upland vegetable crops under excessive nitrogen fertilization. Journal of Cleaner Production. 346: 131197.
7.	Das S, Kim GW, Lee JG, Bhuiyan MSI , Kim PJ. 2021. Silicate fertilization improves microbial functional potentials for stress tolerance in arsenic-enriched rice cropping systems. Journal of Hazardous Materials. 417: 125953
8.	Bhuiyan MSI , Lim JY, Lee SB, Lee JG, Kim PJ. 2021. Agricultural nitrogen and phosphorus balances of Korea and Japan: Highest nutrient surplus among OECD member countries. Environmental Pollution. 286: 117353.
9.	Bhuiyan MSI , Rahman A, Kim GW, Das S, Kim PJ. 2021. Eco-friendly yield-scaled global warming potential assists to determine the right rate of nitrogen in rice system: A systematic literature review. Environmental Pollution. 271: 116386.
10.	Bhuiyan MSI , Raman A, Hodgkins DS, Mitchell D, Nicol HI. 2017. Influence of high levels of Na ⁺ and Cl ⁻ on ion concentration, growth, and photosynthetic performance of three salt-tolerant plants. Flora-Morphology, Distribution, Functional Ecology of Plants. 228: 1-9.
11.	Bhuiyan MSI , Raman A, Hodgkins DS. 2016. Plants in remediating salinity-affected agricultural landscapes. South Asia. 83:51-66.
12.	Bhuiyan MSI , Maynard G, Raman A, Hodgkins DS, Mitchell D Nicol HI. 2016. Salt effects on proline and glycine betaine levels and photosynthetic performance in <i>Melilotus siculus</i> , <i>Tecticornia pergranulata</i> , and <i>Thinopyrum ponticum</i> measured in simulated saline conditions. Functional Plant Biology. 43: 254-265.
13.	Bhuiyan MSI , Raman A, Hodgkins DS, Mitchell D Nicol HI. 2016. An <i>ex-situ</i> salinity restoration assessment using a legume, saltbush, and grass in Australian soil. Clean-Soil, Air, Water. 44: 840-848.
14.	Bhuiyan MSI , Raman A, Hodgkins DS, Mitchell D, Nicol HI. 2015. Physiological response and ion accumulation in two grasses, one legume, and one saltbush under soil water and salinity stress. Ecohydrology. 8:1547-1559.
15.	Bhuiyan MSI , Raman A, Hodgkins DS, Mitchell D, Nicol HI. 2015. Salt accumulation and physiology of naturally occurring grasses in saline scalds in Australia. Pedosphere. 25: 501—511.
16.	Fahmina A, Islam MN, Shamsuddoha ATM, Bhuiyan MSI , Shilpi S. 2013. Response of phosphorus and sulphur on the growth and yield of Soybean (<i>Glycine max</i> L.). International Journal of Bio-resource and Stress Management. 4: 556— 561.
17.	Hossain MA, Shamsuddoha ATM, Paul AK, Bhuiyan MSI , Zobaer ASM. 2011. Efficacy of different organic manures and inorganic fertilizer on the yield and yield attributes of Boro Rice. The Agriculturists. 9: 117—125.

18.	Shamsuddoha ATM, Anisuzzaman M, Sutradhar GNC, Hakim MA, Bhuiyan MSI .2011. Effect of sulfur and boron on nutrients in Mungbean (<i>Viganaradiata</i> L.) and soil Health. International Journal of Bio-resource and Stress Management. 2: 224—229.
19.	Mohiuddin M, Paul A., Sutradhar GNC, Bhuiyan MSI , ZubairHM.2011.Response of nitrogen and sulphur fertilizers on yield, yield components and protein content of oilseed Mustard (<i>Brassicasp</i>).Plant Resource Management.2(1):93—99.
20.	Farhad ISM, Islam MN, Hoque S, BhuiyanMSI .2010. Role of potassium and sulphur on the growth, yield and oil content of Soybean (<i>Glycine max</i> L.). Academic Journal of Plant Sciences. 3: 99—103.
21.	Islam MA, Shamsuddoha ATM, Ullah M, Bhuiyan MSI , Farhad ISM, Mamun MAA. 2010. Effect of potash and its application methods on nutrient uptake by summer onion and nutrient status of post-harvest soil. International Journal of BioResearch. 9: 43—48.
22.	Issak M, Sutradhar GNC, Bhuiyan MSI , Firdousi J and Sultana A.2010. Direct and residual effect of rock phosphate on the yield contributing characters of rice-rice cropping pattern in an acidic soil. Bangladesh Journal of Progressive Science and Technology. 8: 127—130.
23.	Bhuiyan MSI , Islam M N, Haque MS, Issak M and Chowdhury S.2008. Effect of vermicompost and NPK on the growth, yield and nutrient uptake of wheat. Bangladesh Journal of Agriculture and Environment. 4: 77—83.
24.	Bhuiyan MMH, Rahman MM, Afroze F, Sutradhar GNC, Bhuiyan MSI .2008. Effect of Phosphorus, Molybdenum and <i>Rhizobium</i> Inoculation on growth and nodulation of Mungbean. Journal of Soil and Nature. 2: 25—30.
25.	Bhuiyan MSI ,Islam MN, Haque MS.2008. Effect of vermicompost and NPK on the potassium and sulphur contents in wheat and the post-harvest soil. Journal of Sher-e-Bangla Agricultural University. 2: 68—73.
26.	Islam MA, Shamsuddoha ATM, BhuiyanMSI , Hasanuzzaman M.2008. Response of summer onion to potash and its application methods.American-Eurasian Journal of Agronomy. 1: 10—15.
27.	Bhuiyan MSI , Islam MN, Haque MS, Sutradhar GNC, Bhuiyan MMH.2007. Effect of vermicompost and NPK on the nitrogen and phosphorous concentrations in wheat and the post-harvest soil. Journal of Agricultural Science and Technology. 8: 6—10.
	Books
1.	Mohammad Saiful Islam Bhuiyan , Md. Nurul Islam, Sirajul Hoque. Vermicompost and NPK on wheat: growth, chemical composition and yield. LAP LAMBERT Academic Publishing. 2012. Germany.

Statistical analysis:

Gen Stat, Crop Stat, SPSS, Statistix, and R language

Language Proficiency:

Course attended

IELTS score 6.5

German language course at Goethe – Institut, Dhaka

Membership:

1. Australian Society of Soil Science Inc. (2016: Student Member)
2. International Erosion Control Association (IECA)
3. Bangladesh Society of Soil Science
4. Bangladesh Agricultural Extension Network (BAEN)

Selected Short Training Course (Vital):

Subject	Duration	Year	Institution	Sponsor
A) Training in Abroad:				
Innovative Agricultural Technology and Management	9 November – 4 December	2009	Cyprus International Institute of Management (CIIM)	Government of Cyprus
B) Training in Local:				
Upazilla Vhumi O Mrittica Sampad Nirdesika	November 9-14	2008	Soil Resource Development Institute (SRDI)	SRDI, Bangladesh
Arsenic in Drinking Water Soil and Food Crops in Southeast Asia	April 16 –20	2011	University of South Australia and Dhaka Community Hospital	Crawford fund, Australia
The use and maintenance of Atomic Absorption Spectrophotometer,	June 03-09	2008	Department of Soil, Water and Environment & Department of Geology	University of Dhaka, Bangladesh

Referees:

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