☎ (+880) 1912700606

📍 BRRI, Gazipur-1701, Bangladesh

✉ niaz.sust@gmail.com

🌐 brri.gov.bd

iD https://orcid.org/0000-0002-8789-4144

https://scholar.google.com/citations?user=hijYjs0AAAAJ

R^G https://www.researchgate.net/profile/Niaz-Md-Farhat-Rahman

Niaz Md. Farhat Rahman

Principal Scientist

(Agricultural Statistician and Climate Change Researcher)

Bangladesh Rice Research Institute (BRRI) Gazipur, Bangladesh

Additional Activities

Adjunct Faculty *of Gazipur Agricultural University (GAU), Salna, Gazipur, Bangladesh*

Member*, Syllabus Committee, Department of Agricultural Statistics, Sylhet Agricultural University, Sylhet, Bangladesh*

Member*, Syllabus Committee, Department of Statistics, Mawlana Bhashani Science and Technology University (MBSTU) Tangail, Bangladesh*

CAREER OBJECTIVE

As a committed researcher, my goal is to take on a leadership role in a Bangladeshi research institute, where I can foster research excellence, drive innovation, and advance locally relevant studies. I aspire to mentor and empower the next generation of scholars while strengthening the institution's research capacity. By addressing critical national challenges and emerging opportunities, I aim to contribute to the strategic growth and global competitiveness of Bangladesh's research landscape.

RESEARCH INTERESTS

- My research interests lie in developing and evaluating statistical, econometric, regional climate, and machine learning models for applications in agricultural meteorology, climate change, plant breeding, and agronomic research.
- Additionally, I specialize in data science, statistical software development, biometry, bioinformatics, spatial science, remote sensing & GIS, and crop modelling to enhance research precision and efficiency.
- Through my work, I strive to develop impact-driven solutions in Precision Agriculture, bridging the gap between research, policy, and practice to improve farmers' livelihoods and agricultural sustainability.

- Job Experience (Teaching and Research): 16 Years
- Journal Articles (International and National): 57 (Google Scholar Citations: 996; h-index: 16; i10-index: 26)
- Book: 02 (In Press: 02); Policy paper: 02
- Conference Presentation (International and National): 05
- Research Supervision at BSc level: 08
- Research Supervision at MS level: 02
- Management experience of funded research projects: 11
- Developed Software: 12
- Date of Birth: 01-11-1983

PROFICIENCY

Research
Academic
Management
Technical
Planning
Initiative
Leadership

EDUCATION

PhD (Thesis Defended)
STATISTICS, 2024
Department of Statistics
Shahjalal University of Science and Technology (SUST), Sylhet, Bangladesh

Master's Degree
AGRICULTURAL STATISTICS, 2009
Department of Agricultural Statistics
Bangladesh Agricultural University (BAU), Mymensingh, Bangladesh
CGPA: 3.796 out of scale 4.00
Merit position: **1st**

Bachelor's Degree
STATISTICS, 2007
Department of Statistics
Shahjalal University of Science and Technology (SUST), Sylhet, Bangladesh
CGPA: 3.48 out of scale 4.00
Merit position: **3rd**

Academic Achievements

District Stipend 1998-2001

Scholarship for merit position at BSc level under Department of Statistics Shahjalal University of Science and Technology (SUST), Sylhet Bangladesh 2002-2007

Scholarship for merit position at MS level under Department of Agricultural Statistics, Bangladesh Agricultural University, Mymensingh, Bangladesh 2008-2009

QUALIFICATIONS

- Extensive knowledge in Applied Statistics especially in Agriculture, Statistical Modelling particularly Linear Mixed Model, AI and Machine Learning Models, Statistical Software Development, Spatial Science, Remote Sensing and GIS, Quantitative and Qualitative Models, Regional Climate Modelling and Numerical Weather Prediction Models.
- Extensive knowledge in Agrometeorology, Crop modelling, and Climate Change impacts on Agriculture.
- Proficient in designing and implementing IoT-based solutions for Intelligent Irrigation Management, Nutrient Management and Greenhouse Gas Mitigation in Agriculture.
- Proven track record of leading innovative research projects related to Agrometeorology, Crop modelling, and Climate Change in rice production systems.
- Published multiple peer-reviewed articles in reputed journals focusing on sustainable agricultural practices, water management, and climate resilience.
- Expertise in advanced data analysis tools (e.g., R, Python, GIS).
- Skilled in IoT-based technologies such as sensors, automation systems, and data analytics for precision agriculture.
- Actively involved in advising policymakers on climate-smart agricultural practices and management strategies.
- Conducted training programs and workshops for researchers, extension workers, and farmers on statistical modelling, statistical software, experimental designs, machine learning models, agromet advisories, IoT applications, and climate adaptation strategies.
- Experience in coordinating with different government institutions, international organizations, and multidisciplinary teams on climate-resilient agriculture projects through Agromet Lab of BRRI.
- Leadership skills in managing research teams and overseeing successful project implementation.
- Recipient of Digital Bangladesh Award, 2022 (National Award) for contributions to agriculture and climate change research.
- Excellent written and verbal communication skills with the ability to present research findings effectively to diverse audiences, including stakeholders, farmers, and policymakers.

Research Achievements

Main founding member of Agrometeorology, Crop Modelling and Climate Change Research Laboratory (Agromet Lab), Bangladesh Rice Research Institute, Gazipur, Bangladesh.

Obtained PhD scholarship under National Agricultural Technology Program (NATP) funded by World Bank perused at Department of Statistics Shahjalal University of Science and Technology (SUST), Sylhet Bangladesh

Achieved National Award named Digital Bangladesh Award 2022 from Prime Minister for the innovation of Integrated Rice Advisory System (IRAS) for Sustainable Productivity in Bangladesh.

Grants for Technology Innovation, Research and Development from USAID and administered by National Academy of Sciences (NAS) for "Integrated Rice Advisory System (IRAS) for Sustainable Productivity in Bangladesh under PARTNERSHIPS FOR ENHANCED ENGAGEMENT IN RESEARCH (PEER) CYCLE-8 in 2019-2022

55 (national and international) scientific publications (full paper), 02 policy paper, 02 books (full), 10 popular articles, 14 abstracts and other works (bulletins/proceedings) published in different national and international platforms.

RESEARCH EXPERIENCE

Principal Scientific Officer (Grade-4), 26/12/2022 – Present
Bangladesh Rice Research Institute (BRRI)

Strategic Leadership and Research Planning
- Lead the design and implementation of research methodologies for agricultural statistics in rice research.
- Develop long-term strategies and research frameworks for the Agricultural Statistics Division in alignment with BRRI's objectives.
- Oversee the preparation and execution of research proposals, ensuring statistical rigor and relevance.

Supervision and Team Management
- Supervise and guide Senior Scientific Officers, researchers, and technical staff in data collection, analysis, and reporting.
- Provide mentorship and technical expertise to build the capacity of the division's team members.
- Monitor and ensure the quality and accuracy of statistical analyses conducted within the division.

Advanced Statistical Analysis and Interpretation
Research Evaluation and Impact Assessment
Knowledge Dissemination and Publication
Collaboration and Networking; Capacity Building and Training
Policy Development and Advisory Role
Administrative Responsibilities
Innovation and Technological Advancement

Senior Scientific Officer (Grade-6), 23/09/2014 – 25/12/2022
Bangladesh Rice Research Institute (BRRI)

Research Design and Data Management
- Develop statistically sound experimental designs for agricultural research trials, including field and laboratory experiments.
- Manage and oversee data collection processes to ensure accuracy, consistency, and reliability.
- Develop and maintain databases for storing and organizing research data.

Statistical Analysis and Interpretation
- Perform advanced statistical analyses using software such as R, SAS, SPSS, or other relevant tools.
- Analyze data from experiments to evaluate the performance of rice varieties, agronomic practices, and environmental factors.
- Interpret results to derive meaningful conclusions and actionable insights for rice research and development.

Report and Article Writing and Documentation
Collaboration and Support; Monitoring and Evaluation
Innovation and Capacity Building; Administrative Responsibilities
Contribution to National and International Collaboration

Scientific Officer (Grade-9), 06/01/2013 – 22/09/2014
Bangladesh Rice Research Institute (BRRI)

Research Support and Experimental Design
Data Collection and Management
Statistical Analysis
Reporting and Documentation
Collaboration and Communication
Capacity Building
Innovation and Technology Integration
Administrative Support

Training Received

2006-2007, Title: An Introduction to Computer Applications, Package and Programming
Organized by: Bangladesh Computer Council, Sylhet Centre.
Duration: 90 days

2009, Title: Basics of MS Office
Organized by: Graduate Training Institute, Bangladesh Agricultural University, Mymensingh, Bangladesh
Duration: 15 days

2009, Title: Data analysis- SPSS, STATA and MSTATC
Organized by: Graduate Training Institute, Bangladesh Agricultural University, Mymensingh, Bangladesh
Duration: 15 days

2012, Title: Research Methodology
Organized by: National Academy for Education and Management (NAEM), Dhaka, Bangladesh
Duration: 40 days

2013, Title: Application Software for Office Management
Organized by: Computer and GIS Unit, Bangladesh Agricultural Research Council, Dhaka, Bangladesh
Duration: 06 days

2013, Title: Rice Breeder Seed Production and Preservation Training Course
Organized by: Training Division, Bangladesh Rice Research Institute, Gazipur-1701, Bangladesh
Duration:06 days

2014, Title: Rice Production Training Course for BRRI Scientists
Organized by: Training Division, Bangladesh Rice Research Institute, Gazipur-1701, Bangladesh
Duration: 60 days

RESEARCH EXPERIENCE

Research Associate, 01/07/2009 - 13/02/2010
Agriculture and Food Security in Bangladesh: Four Decades of Development Project
Implemented by- Department of Agricultural Statistics
Bangladesh Agricultural University, Mymensingh, Bangladesh

Conducted research program for the planning, supervising, data enumerating, entry, editing, coding, analyzing and preparation of report based on Descriptive and Logarithmic analysis through SPSS regarding Agriculture and Food Security in Bangladesh covering Sherpur district.

Monitoring Officer, 01/07/2007 – 30/06/2009
Mati NGO
67/1, S. A. Sarkar Road, Sankipara, Mymensingh

- To coordinate, supervision and monitoring the Research and Training regarding Agriculture and Socio-economic oriented program.
- Entry, editing, coding, analysis and tabular presentation of collected data for different research projects of GOs and NGOs implemented by different consulting firms or agencies are also being done.

Research Student, 01/01/2009 – 30/06/2009
Department of Agricultural Statistics
Bangladesh Agricultural University, Mymensingh, Bangladesh

Title: Growth performance, Instability measurement and Forecasting of Pulse production in Bangladesh
Funded by: Bangladesh Agricultural University research fund

ACADEMIC EXPERIENCE

Lecturer in Statistics, 14/01/2010 – 30/06/2010
Sheikh Fajilatunnesa Mujib Fisheries College
Melandah, Jamalpur
Offering classes for undergraduate students mainly on Statistics (Theory and Practical) covering Introduction to Statistics, Collection, Possessions, Organizations of data; measures of central tendency, dispersion, moments, skewness-kurtosis, correlation and regression analysis, experimental design.

Lecturer in Statistics, 01/07/2010 – 31/03/2012
Mirpur University College
Mirpur-2, Dhaka-1216
Offering University classes for undergraduate and post-graduate students mainly on Basic Statistics, Business Statistics-I, Business Statistics-II, Business Mathematics, Social Statistics, Economic Statistics covering both Theory and Practical. Evaluation of the project paper prepared by the undergraduate students of the department to fulfil the academic requirement.

Lecturer in Statistics, 01/04/2012 – 05/01/2013
Bangladesh University
15/1, Iqbal Road, Mohammadpur, Dhaka-1207
Offering University classes for undergraduate and post-graduate students mainly on Basic Statistics, Business Statistics-I, Business Statistics-II, Business Mathematics, Social Statistics, Economic Statistics (Theory and Practical).
Conducting classes on Introduction to Computer for Graduate and Post-graduate students.
Planning, supervising and monitoring project works undergraduate students.
Implementation of the project works regarding collection of data, analysis of findings, data compilation and report preparation.
Evaluation of the project paper prepared by the undergraduate students of the department to fulfil the academic requirement.

Training Received

2015, Title: Agricultural Land Utilization
Organized by: Department of Environment, Ministry of Environment and Forest, Government of the Republic People of Bangladesh
Duration: 02 days

2015, Title: Enhancing Climate Indices for Sector-Specific Applications in the South Asia Region
Organized by: World Meteorological Organization (WMO) & Indian Institute of Tropical Meteorology (IITM), Pune, India.
Funded by: World Meteorological Organization (WMO)
Duration: 14 days

2016, Title: Agro meteorology, Linux, WRF model and CPT
Organized by: Strom Warning Centre, Bangladesh Meteorological Department, Dhaka, Bangladesh
Duration: 15 days

2017, Title: Breeding for rice (B4R) on-line data management system
Organized by: International Rice Research Institute (IRRI), Philippines
Funded by: Transforming Rice Breeding (TRB) Project, BRRI
Duration: 90 days

2018, Title: Use of satellite product for drought monitoring
Organized by: Bangladesh Meteorological Department (BMD)
Funded by: International Centre for Integrated Mountain Development
Duration: 05 days

2019, Title: Decision Support System for Agro technological Transfer (DSSAT)
Organized by: Agrometeorology, Crop Modelling and Climate Change Research Laboratory (Agromet Lab), Bangladesh Rice Research Institute
Funded by: Agromet Project
Duration: 05 days

Research Grants

2023- ongoing, Principal Investigator
Grant from World Bank under Program on Agricultural and Rural Transformation for Nutrition, Employment and Resilience (PARTNER) for Improving Rice Productivity through Weather Forecast Based Advisory Services and Its Impact of Weather Parameters on Rice Production in Bangladesh.

2019-2022, Principal Investigator
Technology Innovation, Research and Development Grant from USAID for "Integrated Rice Advisory System (IRAS) for Sustainable Productivity in Bangladesh under PARTNERSHIPS FOR ENHANCED ENGAGEMENT IN RESEARCH (PEER) CYCLE-8".

2019-2020, Principal Investigator
Technology Innovation, Research and Development Grant from Ministry of Science and Technology, Govt. of Bangladesh for "A Statistical Approach for Estimating Baseline Genetic Trend of Irrigated Rice Varieties in Bangladesh"

2018-2019, Principal Investigator
Technology Innovation, Research and Development Grant from Ministry of Science and Technology, Govt. of Bangladesh for "Genetic Trend of BRRI Released Irrigated Rice Varieties in Bangladesh"

2017-2018, Associate Investigator
Special Allocation for Science and Technology Grant from Ministry of Science and Technology, Govt. of Bangladesh for "Diagnoses of physical environment and pathogen biology responsible for rice blast disease outbreak in Bangladesh and build up awareness to the stakeholders".

2016-2017, Principal Investigator
Technology Innovation, Research and Development Grant from Ministry of Science and Technology, Govt. of Bangladesh for "AMMI model, GGE biplot and Stability analysis for yield performance of rice genotypes across different environments in Bangladesh".

2016-2017, Associate Investigator
Associate Investigator, Special Allocation for Science and Technology Grant from Ministry of Science and Technology, Govt. of Bangladesh for "Development and Validation of Regression Model for Forecasting Rice Blast in Bangladesh"

2015-2016, Principal Investigator
Technology Innovation, Research and Development Grant from Ministry of Science and Technology, Govt. of Bangladesh for "Stability and Adaptability Analysis of BRRI Released Aus Rice Varieties in Different Locations of Bangladesh"

2015-2016, Associate Investigator
Special Allocation for Science and Technology Grant from Ministry of Science and Technology, Govt. of Bangladesh for "Seasonal Weather Forecasting for Boro Rice Production in Bangladesh"

2013-2014, Associate Investigator
Special Allocation for Science and Technology Grant from Ministry of Science and Technology, Govt. of Bangladesh for "Stochastic Frontier Approach and Data Envelopment Analysis for Efficiency and Environmental Awareness of Paddy Farmers in Bangladesh"

2011-2012, Principal Investigator
Technology Innovation, Research and Development Grant from Ministry of Science and Technology, Govt. of Bangladesh for "Efficiency of Boro Rice Farming Households in Selected Area of Bangladesh: A Data Envelopment Analysis with Bootstrap and Stochastic Frontier Approach"

Training Received

2025, Title: Systematic Reviews and Meta Analyses
Organized by: Agromet Lab, Bangladesh Rice Research Institute (BRRI)
Funded by: PARTNER Project
Duration: 03 days

2025, Title: A CMIP6 based Multi-Model Downscaling Ensemble to underpin Climate Change Services in Bangladesh
Organized by: Agromet Lab, BRRI
Funded by: PARTNER Project
Duration: 03 days

2025, Title: Climate Information Services, Weather Forecast, Advisory Generation and Dissemination
Organized by: Agromet Lab, BRRI
Funded by: PARTNER Project
Duration: 03 days

2025, Title: Introduction to Applied Machine Learning
for Data-Driven Science
Organized by: Agromet Lab, BRRI
Funded by: PARTNER Project
Duration: 03 days

2025, Title: Fundamentals of Artificial Intelligence and it's use in Agricultural Research
Organized by: Agromet Lab, BRRI
Funded by: PARTNER Project
Duration: 03 days

Abstract

2015, M S Kabir, M I Hossain, N M F Rahman and Yukiyo Yamamoto. 2015. Effect of Climate Change on Rice Yield in Bangladesh. Workshop on Impacts of Climate Change on Agriculture and Adaptation to Extreme Events in Bangladesh. Bangladesh Rice Research Institute, Gazipur 1701, Bangladesh.

2014, M U Kulsum, M J Hasan and N M F Rahman. 2014. Genotype by environment interaction and stability analysis of grain yield and its related traits in BRRI developed promising hybrid rice genotypes. Bangladesh rice research abstract 2014. Bangladesh Rice Research Institute, Gazipur 1701, Bangladesh.

Research Articles

2025
Rahman, M. C., Sarkar, M. A. R., Kabir, M. J., Rahaman, M. S., Biswas, J. C., Aziz, M. A., … & McKenzie, A. M. (2025). Vulnerability and adaptation in flood-prone ecosystems of Bangladesh: a case study of rice farming households. Discover Sustainability, 6(1), 55.

2024
Rahman, N. M. F., Malik, W. A., Baten, M. A., Kabir, M. S., Rahman, M. C., Ahmed, R., … & Piepho, H. P. (2024). Sustaining rice productivity through weather-resilient agricultural practices. Journal of the Science of Food and Agriculture, 104(4), 2303-2313.

2023
Rahman, M. C., Rahaman, M. S., Biswas, J. C., **Rahman, N. M. F.**, Islam, M. A., Sarkar, M. A. R., … & Maniruzzaman, M. (2023). Climate change and risk scenario in Bangladesh. Asia-Pacific Journal of Regional Science, 7(2), 381-404.

Rahman, N. M. F., Malik, W. A., Kabir, M. S., Baten, M. A., Hossain, M. I., Paul, D. N. R., … & Piepho, H. P. (2023). 50 years of rice breeding in Bangladesh: genetic yield trends. Theoretical and Applied Genetics, 136(1), 18.

Aziz, M. A., Shohan, H. U. S., **Rahman, N. M. F.**, Rahman, M. C., Nihad, S. A. I., Hassan, S. Q., … & Rukshanara, Z. (2023). Projection of future precipitation in Bangladesh at Kharif-II season using geospatial techniques. Earth Systems and Environment, 7(1), 255-266.

2022
Aziz, M., Hossain, A. B. M. Z., Moniruzzaman, M., Ahmed, R., Zahan, T., Azim, S., & **Rahman, N. M. F.** (2021). Mapping of agricultural drought in Bangladesh using geographic information system (GIS). Earth Syst Environ.

Farhana, Z., Rahman, M. M., **Rahman, N. M. F.**, Hossain, M., & Uddin, M. T. (2022). DISCOVERING THE CHANGE OF MAJOR CLIMATIC ELEMENTS IN BANGLADESH: A STATISTICAL APPLICATION OF TRENDS, GROWTH AND VARIABILITY ANALYSIS. MAUSAM, 73(2), 441-446.

2021
Al Mamun, M. A., Nihad, S. A. I., Sarkar, M. A. R., Aziz, M. A., Qayum, M. A., Ahmed, R., **Rahman, N. M. F.** & Kabir, M. S. (2021). Growth and trend analysis of area, production and yield of rice: A scenario of rice security in Bangladesh. Plos one, 16(12), e0261128.

Rahman, N. M. F., Rahman, M. C., Baten, M. A., Hossain, M. I., Hassan, S. M. Q., Ahmed, R., … & Kabir, M. S. (2021). Weather forecast based rice advisory services in Bangladesh. Bangladesh Rice Journal, 25(1), 51-74.

Kabir, M. J., Sarkar, M. A. R., Rahman, M. C., **Rahman, N. M. F.**, Mamun, M. A. A., Chowdhury, A., … & Kabir, M. S. (2021). Risk of rice cultivation under current and future environment and market. Bangladesh Rice Journal, 25(1), 101-110.

2020
Shozib, H. B., Siddiquee, M. A., **Rahman, N. M. F.**, Mamun, M. A. A., Sarkar, M. A. R., Rabbi, S. M. H. A., … & Kabir, M. S. (2020). Grain quality research of rice for ensuring nutritional food security. *Bangladesh Rice Journal*, *24*(2), 103-117.

Salam, M. U., Kabir, M. S., Islam, A. K. M. S., Sarkar, M. A. R., Mamun, M. A. A., Rahman, M. C., … & **Rahman, N. M. F.** (2020). Doubling rice productivity in Bangladesh: A way to achieving SDG 2 and moving forward. *Bangladesh Rice Journal*, *24*(2), 1-47.

Abstract

2014, A Akter, M J Hassan, M U Kulsum, M H Rahman, A. K. Paul and N M F Rahman. 2014. Correlation and Path analysis of some promising Hybrid Rice. Bangladesh rice research abstract 2014. Bangladesh Rice Research Institute, Gazipur 1701, Bangladesh.

2014, M C Rahman, M A B Siddique, M A Salam, M A Islam, N M F Rahman and M S Al-Faisal. 2014. Assessment of technical efficiency of rice farmers in a selected empoldered area of Bangladesh. Bangladesh rice research abstract 2014. Bangladesh Rice Research Institute, Gazipur 1701, Bangladesh.

2014, M I Hossain, M S Kabir, N M F Rahman and M A Aziz. 2014. Effect of rainfall and maximum temperature on Aman rice production of Bangladesh for last decade. Bangladesh rice research abstract 2014. Bangladesh Rice Research Institute, Gazipur 1701, Bangladesh.

2014, M S Kabir, D N R Paul, M I Hossain and N M F Rahman. 2014. Estimating area and production of rice in Bangladesh. Bangladesh rice research abstract 2014. Bangladesh Rice Research Institute, Gazipur 1701, Bangladesh.

2014, N M F Rahman, M I Hossain and M S Kabir. 2014. An Application of Box-Jenkins method for forecasting of aus, aman and boro rice production in Bangladesh. Bangladesh rice research abstract 2014. Bangladesh Rice Research Institute, Gazipur 1701, Bangladesh.

2014, M I Hossain, M S Kabir, N M F Rahman and M A B Siddique. 2014. Development and validation of producer and consumer preference models for rice varieties in Bangladesh. Bangladesh rice research abstract 2014. Bangladesh Rice Research Institute, Gazipur 1701, Bangladesh.

Rabbi, S. M. H. A., Biswas, P. L., Rashid, E. S. M. H., Iftekharuddaula, K. M., Rahman, **N. M. F., Rahman**, M. S., ... & Kabir, M. S. (2020). Increasing rice yield through targeting genetic potentials by rice types. *Bangladesh Rice Journal*, *24*(2), 67-82.

2019

Aziz, M. A., Hossain, M. I., Ahmed, R., & **Rahman, N. M. F.** (2019). Edaphic Suitability Mapping of BRRI dhan50 and BRRI dhan72. Data Science and SDGs: Challenges, Opportunities and Realities.

Qayum, M. A., Hossain, M. I., **Rahman, N. M. F.**, Aziz, M. A., Al Mamun, M. A., Ahmed, R., & Kabir, M. S. (2019). Region specific BRRI variety adoption: A simple way of increasing national production. Data Science and SDGs: Challenges, Opportunities and Realities.

Al Mamun, M. A., Hossain, M. I., Kabir, M. S., **Rahman, N. M. F.**, Qayum, M. A., Aziz, M. A., & Ahmed, R. (2019). GGE biplot and Stability Analysis for Yield Performance of Rice Genotypes across Different Environments in Bangladesh. Data Science and SDGs: Challenges, Opportunities and Realities.

N M F Rahman, M A A Mamun, R Ahmed, M I Hossain, M A Qayum, M A Aziz, M A Hossain and M S Kabir. Stability and Adaptability Analysis of BRRI Developed Aus Varieties in Different Locations of Bangladesh. Bangladesh Rice J. 22 (1): 65-72, 2018.

Anowara Akter, M Jamil Hasan, Mosammat Umma Kulsum, Laila Ferdousi Lipi, Hasina Begum, **Niaz Md Farhat Rahman**, Tonima Farhat and Md Zakaria Ibne Baki. Stability and adaptability of promising hybrid rice genotypes in different locations of Bangladesh. Adv Plants Agric Res. 2019;9(1):35−39.

2018

M. J. Hasan, M. U. Kulsum, E. Hossain and **N. M. F. Rahman**. Stability of hybrid rice genotypes for grain yield and maturity. Bangladesh J. Agril. Res. 43(1): 99-108, March 2018.

Abdullah Al-Mamun, **Niaz Md. Farhat Rahman**, Md. Abdullah Aziz, Md. Abdul Qayum, Md. Ismail Hossain, Sheikh Arafat Islam Nihad and Md. Shahjahan Kabir. Identification of Meteorological Drought Prone Area in Bangladesh using Standardized Precipitation Index. J Earth Sci Clim Change 2018, 9:3.

2017

M.S. Kabir, M.A. Salam, D.N.R. Paul, M.I. Hossain, **N. M. F. Rahman**, and M.A. Latif. Geo-statistical models for determining spatial variation and spatial dependency of soil arsenic in Bangladesh. J. Natn. Sci. Foundation Sri Lanka 2017 45 (1): 35-47.

2016

M. S. Kabir, M. A. Salam, D. N. R. Paul, M. I. Hossain, **N. M. F. Rahman**, Abdullah Aziz, and M. A. Latif. Spatial Variation of Arsenic in Soil, Irrigation Water, and Plant Parts: A Microlevel Study. The Scientific World Journal Volume 2016, Article ID 2186069, 14 pages.

N. M. F. Rahman, M M Hasan, M I Hossain, M A Baten, S Hosen, M A Ali and M S Kabir. Forecasting Aus Rice Area and Production in Bangladesh using Box-Jenkins Approach. Bangladesh Rice J. 20 (1) : 1-10, 2016.

M S Kabir, D N R Paul, M I Hossain and **N. M. F. Rahman**. Estimating Area and Production of Rice under Different Crop-cut Methods in Bangladesh. Bangladesh Rice J. 20 (1): 1-10, 2016.

Professional Activities

2014, Presented an invited poster as a principal author in International Rice Congress 2014 at Bangkok International Trade and Exhibition Centre (BITEC) in Bangkok, Thailand, 27 October-01 November 2014; "Forecasting Aus Rice Production in Bangladesh using Box Jenkins Approach".

2015, Invited trainer on "Path Analysis" organized by tanning division of BRRI for the training program on "Rice Production Training Course for BRRI Scientists".

2016, Invited trainer on "Path Analysis" organized by tanning division of BRRI for the training program on "Rice Production Training Course for BRRI Scientists".

2017, Invited trainer for 04 batches on the training program on "Programming R for Experimental Design and Data Analysis". organized by Agricultural Statistics Division and funded by Mujibnagar Integrated Agricultural Development Project of BRRI.

2018, Presented paper as a principal author in International Rice Congress 2018 at Marina Bay Sand Exhibition Centre in Singapore, 15-17 October 2018; "Genetic Trend of Irrigated Rice Varieties in Bangladesh".

2020, Presented paper as a principal author in Sixth International Conference on Climate Services (ICCS6) at Indian Institute of Tropical Meteorology (IITM), Pune, India, 10-13 February 2020; "Weather Forecast Based Advisory Services in Bangladesh".

2023, Presented paper as a principal author in 6th International Rice Congress 2023 at Philippines Convention Centre in Philippines, 16-19 October 2023; "50-years Rice Breeding in Bangladesh: Genetic Yield Trend".

2015

M S Kabir, M U Salam, A Chowdhury, **N M F Rahman**, K M Iftekharuddaula, M S Rahman, M H Rashid, S S Dipti, A Islam, M A Latif, A K M S Islam, M M Hossain, B Nessa, T H Ansari, M A Ali and J K Biswas. Rice Vision for Bangladesh: 2050 and beyond. Bangladesh Rice J. 19 (2): 1-18, 2015.

Md. Ismail Hossain, **Niaz Md. Farhat Rahman**, Md. Shahjahan Kabir and Muhammad Tareq. Development and Validation of Producer and Consumer Preference Models for Rice Varieties in Bangladesh. Bangladesh Rice J. 19(1):54--63, 2015.

Md. Belal Hossain, Khandakar Faisal Ibn Murad, Sariful Bin Ekram, **Niaz Md. Farhat Rahman**, Mahbubur Rashid Talukder and Mesbauddin Ahmed. Irrigation Scheduling of Wheat using Pan Evaporation Method. International Journal of Innovative Research in Advanced Engineering (IJIRAE) Issue 10, Volume 2 (October 2015).

Md. Jamil Hasan, Mosammat Umma Kulsum, Emran Hossain, Md. Manzur Hossain, Md. Mustafizur Rahman and **Niaz Md. Farhat Rahman**. Combining ability analysis for identifying elite parents for heterotic rice hybrids. Academia Journal of Agricultural Research 3(5): 070-075, May 2015.

Romel Biswash, Naheed Zeba, Mashuka Sharmin, **Niaz Md. Farhat Rahman**, Tonima Farhat and Montasir Ahmed. Character Association of T. Aman Rice (Oryza sativa L.) Varieties of Bangladesh. American-Eurasian J. Agric. & Environ. Sci., 15 (3): 478-484, 2015.

Md. Abdullah Aziz, Md. Abul Kashem Majumder, Md. Shahjahan Kabir, Md. Ismail Hossain, **Niaz Md. Farhat Rahman**, Farhana Rahman and Shakir Hosen. Groundwater Depletion with Expansion of Irrigation in Barind Tract: A Case Study of Rajshahi District of Bangladesh. International Journal of Geology, Agriculture and Environmental Sciences, 3(1): 32-38, 2015.

Md. Jamil Hasan, Mosammat Umma Kulsum, **Niaz Md. Farhat Rahman**, Tonima Farhat, Md. Abu Bakar Siddique. Hybrid Rice Parental Lines Development Utilizing Different Rice Germplasms. Adv. Environ. Biol., 9(2), 24-29, 2015.

2014

Tonima Farhat, Md. Razzab Ali, **Niaz Md. Farhat Rahman**, M. M. Moniruzzaman Kabir and Mobina Noor Kochi. Effect of Border Crops on the Incidence of Insect Pests in Chickpea. IJISET - International Journal of Innovative Science, Engineering & Technology, Vol. 1 Issue 10, December 2014.

Md. Zakaria, Md. Abdullah Aziz, Md. Ismail Hossain and **Niaz Md. Farhat Rahman**. Effects of Rainfall and Maximum Temperature on Aman Rice Production of Bangladesh: A Case Study for Last Decade. International Journal of Scientific & Technology Research Volume 3, Issue 2: 131-137, February 2014.

M. M. Mir Kabir, M. A. Hossain, Tonima Farhat, S. Yasmin & **Niaz Md. Farhat Rahman**. Effects of Different Botanicals and Chemical on the Incidence of Sucking Insect Pests and their Impact on Mosaic Disease of Mungbean. International Journal of Innovative Research and Development, May 2014, Vol: 3, Issue: 5.

M. M. Mir Kabir, Md. Mahamodul Hasan, Tonima Farhat, and **Niaz Md. Farhat Rahman**. Response of Irrigated Wheat to Different Source of Nitrogen. App. Sci. Report.2 (3), 2014: 82-86.

M. B. Hossain, S. B. Ekram, **Niaz Md. Farhat Rahman**, M. M. Hasanand T. Farhat. Distribution System of Irrigation Water in Bangladesh: A Case Study of Bangladesh Agricultural University Farm. IJISET - International Journal of Innovative Science, Engineering & Technology, Vol. 1 Issue 10, December 2014.

Popular Articles

2022
Sustainable Rice Productivity Through IRAS- The Daily Sun, Post-Logue, 22 February 2022, page-7

টেকসই ধান উৎপাদনশীলতা এবং ওয়েদার-স্মার্ট প্রযুক্তি। The Daily Bhorer Kagoj. OP-ED. 07 April 2022

2023
ওয়েদার স্মার্ট প্রযুক্তিতে নতুন দিগন্ত। The Daily Samakal. OP-ED. 18 January 2023

Focus on Weather Smart Rice Production- The Daily Observer, OP-ED, 21 March 2023, page-5

How will El Nino Impact Bangladesh's Climate and Agriculture This Year- The Business Standard, OP-ED, 29 September 2023, page-5

Probable Impacts of El Niño on Agriculture and Monsoon- Special Supplement 2023. The Daily Sun. 31 October 2023

2024
Weather-Resilient Rice farming Promises- The Daily NEWAGE, EDITORIAL, 14 March 2024, page-8

2025
Heading Off Weather Influence on Rice Farming- The Daily NEWAGE, EDITORIAL, 17 January 2025, page-9

2025
মওসুম শুরুর আগে আমরা কতটা প্রস্তুত? The Daily Protidiner Bangladesh. OP-ED. 24 April 2025

2025
আসছে ঘূর্ণিঝড় মওসুম, কতটা প্রস্তুত আমরা? The Daily Samakal. OP-ED. 26 April 2025

2025
Are We Prepared Enough to Face the Upcoming Cyclone Season? The Daily Sun. OP-ED. 07 May 2025

2014
M. Umma Kulsum, M. Jamil Hasan, Md. Ismail Hossain and **Niaz Md. Farhat Rahman**. Stability for BRRI developed Promising Hybrid Rice for Yield and its Related traits. Journal of Applied Science and Agriculture, 9(1) January 2014, Pages: 56-62.4444

2013
Mohammad Chhiddikur Rahman, Md. Abdus Salam, **Niaz Md. Farhat Rahman**, Mohammad Mijanur Rahman and Md. Monir Hossain. Present Status and Potentiality of Shrimp in Bangladesh. Australian Journal of Basic and Applied Sciences, 7(7): 281-286, 2013.

Niaz Md. Farhat Rahman, Mohammad Mijanur Rahman and Md. Azizul Baten. Modelling for Growth and Forecasting of Pulse Production in Bangladesh. Research Journal of Science, Engineering and Technology 5(24): 5578-5587, 2013.

Niaz Md. Farhat Rahman, Md. Azizul Baten, Ashutosh Roy and Md. Monir Hossain. Forecasting of Lentil Pulse Production: An Econometric Analysis. Australian Journal of Basic and Applied Sciences, 7(2): 819-824, 2013.

Niaz Md. Farhat Rahman, Md. Abdullah Aziz, Mohammad Mukhlesur Rahman and Nur Mohammad. Modelling on Grass Pea and Mung Bean Pulse Production in Bangladesh Using ARIMA Model. IOSR Journal of Agriculture and Veterinary Science (IOSR-JAVS), Volume 6, Issue 1 (Nov. - Dec. 2013), PP 20-31.

Niaz Md. Farhat Rahman, Md. Ismail Hossain, Md. Abdullah Aziz, Md. Azizul Baten and Md. Shahjahan Kabir. Prospects of Boro Rice Production in Bangladesh. Advanced in Environmental Biology, 7(14), 4542-4549, 2013.

2012
Niaz Md. Farhat Rahman, M. R. Khan and Ali Mariam. A Deterministic Model for Inland fish Production Forecasting in Bangladesh. Dhaka Commerce College Journal, Volume 4, Issue 2, December 2012.

2011
Niaz Md. Farhat Rahman, M. F. Imam and M. Elias. Searching for the best fitted deterministic model for innovative growth analysis and forecasting of grass pea, lentil, black gram and mung bean pulses production in Bangladesh. Bangladesh J. Environ. Sci. Vol. 21, 162-173, 2011.

2010
M. M. Islam, M. F. Imtiaz, **Niaz Md. Farhat Rahman**, T. Farhat, M. M. U. Islam and M. I. Hossain. 2010. Effects of N applied from urea, cowdung and poultry manure on the yield and yield contributing characters of BRRI dhan29. Intl. J. BioRes. 9(2):15-18.

Niaz Md. Farhat Rahman. Forecasting of boro rice production in Bangladesh: An ARIMA approach. J. Bangladesh Agril. Univ. 8(1): 103-112, 2010.

2009
Niaz Md. Farhat Rahman, T. Noor and M. F. Imam. Trend and Growth Analysis of Marine fish Production in Bangladesh. Bangladesh J. Fish. Res., 13(1), 2009: 35-45.

Niaz Md. Farhat Rahman, M. F. Imam, T. Farhat, M. R. Khan and M. A. B. Siddique. 2009. Forecasting of boro rice production in Bangladesh. Intl. J. BioRes.: 6(6)9-15.

Computer Skills

- Experimental Analysis
  CROPSTAT, PB Tools, STAR

- Statistical Packages
  R and SPSS

- Database
  MySQL

- MS Office
  MS Word, Excel and
  Power Point

PROFICIENCY IN LANGUAGES

- Bengali
  Read, Spoken and Written

- English
  Read, Spoken and Written

PROFESSIONAL AFFILIATIONS

- Bangladesh Statistical
  Association, (BSA) Bangladesh

- Bangladesh Rice Research
  Institute Scientist Association
  (BRRISA), Bangladesh

Sk. B. Hossain, Niaz Md. Farhat Rahman, M. F. Imtiaz, S. Islam and M. A. B. Siddique. Effect of split application of nitrogen fertilizer on yield and yield attributes in t. aman rice (cv. BINA dhan4). Eco-friendly Agril. J. 2(7):648-651, 2009 (July).

S.M. Zobayer Enamul Karim, Bentul Mawa and Niaz Md. Farhat Rahman. Socio-Economic Dimensions of Dowry in Rural Bangladesh: Is It a Matrimonial Function? Society & Change. Vol. III, No.1, January - March 2009.

2008
Niaz Md. Farhat Rahman and M. F. Imam. Growth, Instability and Forecasting of Pigeon Pea, Chickpea and Field Pea Pulse production in Bangladesh. The Bangladesh J. Agric. Econs. XXXI, 1(2008) 81-95.

Books

2023
Aziz, M. A., **Rahman, N. M. F.**, Hossain, M. I., Hossain, A. B. M. Z., Siddique, M. A. B., Khalequzzaman, M. (2023). Present and Future Precipitation Scenarios in Bangladesh. Bangladesh Rice Research Institute (BRRI), Bangladesh.

2024
Aziz, M. A., **Rahman, N. M. F.**, Hossain, M. I., Hossain, A. B. M. Z., Siddique, M. A. B., Khalequzzaman, M. (2024). Spatial Science for Smart Agriculture. Bangladesh Rice Research Institute (BRRI), Bangladesh.

2025
Rahman, N. M. F., Aziz, M. A., Rashid, M. B., Hossain, A. B. M. Z., Siddique, M. A. B., Islam, M. R. (2025). Climate Projections for Strategic Agricultural Planning in Bangladesh. Bangladesh Rice Research Institute (BRRI), Bangladesh.

Rahman, N. M. F., Ahmed, R., Hassan, S. M. Q., Hossain, A. B. M. Z., Siddique, M. A. B., Islam, M. R. (2025). Shifting Weather and Climate Pattern in Bangladesh: A 55-Year Analysis. Bangladesh Rice Research Institute (BRRI), Bangladesh.

On-going Research Programs

As Principal Investigator

- Accuracy of Prediction from Stability Trial for Untested Locations using Varietal Information and Environmental Covariates
- Flood Impact Assessment and Damage Estimation in Southeastern Bangladesh based on the Sentitnel-1 SAR Data
- Shifting Weather and Climate Patterns in Bangladesh: A 55-Year Analysis
- CMIP6-Based Climate Projections for Strategic Agricultural Planning in Bangladesh
- Machine Learning Models for Temperature Prediction in Haor, Coastal, and Barind Regions of Bangladesh

Lists of Developed Software's

- Platform for Advance Statistical Analysis (PAStA)
  https://www.pasta-stat.com

- Climatology Analytical Tool (CAT)
  https://www.cat.brri.gov.bd

- Integrated Rice Advisory System (IRAS)
  https://www.iras.brri.gov.bd

- Transport Management System (TMS)
  https://www.tms.brri.gov.bd

- Project Financial Management System (PFMS)
  https://www.pfms.brri.gov.bd

- Agromet Portal
  https://www.agromet.brri.gov.bd

- Intelligent Irrigation and Nutrient Management System (IINMS)
  https://www.iinmst.brri.gov.bd

- Data Collection and Repository System (DCRS)
  https://www.dcrs.brri.gov.bd

- Rice Analytical Laboratory Management System (RALMS)
  https://www.ral.brri.gov.bd

- Agro-Advisory Dissemination System (SAADS)
  https://www.saadsl.brri.gov.bd

- Schedule Management System
  https://www.schedule.brri.gov.bd

- Movement Register Management System
  https://www.movement.brri.gov.bd

- Predicting Sunshine Hours Using Machine Learning Models for Estimating Water Requirements of Rice in the North-West Region of Bangladesh
- Understanding Extreme Floods: A Probabilistic Deep Learning Approach
- Development of a Web-Based Farmer's Information System for Agromet Advisory Service for Rice Crops in Bangladesh
- Enhancing the Integrated Rice Advisory System (IRAS) for Direct Dissemination of Advisories to Stakeholders
- Development of a Web-Based Rice Cultivation Monitoring System for Haor Areas under the Integrated Rice Advisory System (IRAS)
- Empowering Agromet Lab and Stakeholders: Skill Development and Capacity Building for Effective Agro-Advisory Services
- Field Demonstration of Early Warning Systems Based Rice Production Techniques for Farmers' Adaptation under changing Climate
- AI-Based Detection and Remediation Strategies for Brown Spot and Blast Diseases in Rice Leaves

As Co-Principal Investigator

- IoT-Enabled Weather Forecast Based Integrated Irrigation Management System for Sustainable Rice Productivity in Bangladesh
- Assessment of Methane Emissions in Irrigated Rice Paddy Fields: A Comparative Analysis of Manual Irrigation Techniques and IoT-Based Intelligent Irrigation Systems
- Development of a Rice Advisory Service Utilizing Soil Temperature Forecasts considering the Impact of Temperature Variations on Microbial Activity
- Smart Monitoring of GHG Emissions: An IoT-Enabled Precision Agriculture Approach
- Assessing the Existing Needs and use of Weather Forecast based Rice Advisory Services in the Field Level
- Development of Crop-Weather Calendar for Rice Crop in Bangladesh
- Sustainable Use of Rice Genetic Resources for Climate Resilience in Bangladesh
- Optimizing Fertilizer Application with Weather Forecast and IoT-Integrated Precision Agriculture
- Identify the weather parameters at Economic Threshold Level of Brown Planthopper (BPH)
- Spatial Distribution and Detection of Blast Disease (RBD) in Various Rice Ecosystems of Bangladesh