

CURRICULUM VITAE



Dr. Md. Hannan Ali

Senior Scientific Officer

Bangladesh Rice Research Institute

Regional Station, Rajshahi, Bangladesh

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Sex: Male

Parental Status: Father's Name: Md. Osman Goni

Mother's Name: Mst. Hunufa Begum

Permanent Address: Village.: Nazarpur, Post: Pirganj, Upazila: Natore Sadar, District.: Natore.

Date of Birth: 5 June, 1983

Nationality: Bangladeshi by birth

National ID No.: 6125221272627/5531451853

Spouse Information:

Spouse Name: Syyatha Tune Nessa

Occupation: Teaching

Designation: Assistant Professor

Dept. of Zoology

Organization: Govt. Edward College, Pabna

District: Pabna

E-mail: syyathatune.nessa@gmail.com

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Educational Background:

Passing Year

Ph.D. in Irrigation and Water Management 2023
Bangladesh Agricultural University, Mymensingh
Successfully completed

M.S. in Farm Power & Machinery 2009
Bangladesh Agricultural University, Mymensingh
CGPA: 3.73 (out of 4.0), 1st class

B. Sc. Agricultural Engineering 2007
Bangladesh Agricultural University, Mymensingh
Major: Farm power & Machinery
CGPA: 3.46 (out of 4.0), 1st class

Higher Secondary Certificate (HSC) 2001
Natore City College, Natore
2nd Division

Secondary School Certificate (SSC) 1999
Pirganj High School, Natore
1st Division

Research Interest/Field of Specialization: Irrigation and Water Management

Employment Record:

- **Date of Joining in BRRI:** 10 July 2013
- **Working Experiences:** 10 years 10 months

Service Record (s):

Designation	From	To	Place of posting	Division
Senior Scientific Officer	27 November 2022	Till now	BRRI, Rajshahi	Irrigation and Water Management
Senior Scientific Officer	31 January 2019	16 November 2022	BRRI, Gazipur	Irrigation and Water Management
Scientific Officer	15 February 2015	30 January 2019	BRRI, Kushtia	Irrigation and Water Management
Scientific Officer	10 July 2013	07 February 2015	BRRI, Barishal	Irrigation and Water Management

Job Description:

- ✚ Extension of on-farm water management practices through demonstrations to increase irrigation efficiency.
- ✚ Field visit, farmers' training, and motivation to adopt new technologies, especially AWD.
- ✚ Agricultural drought forecasts to mitigate the T. Aman drought, as well as weather-based irrigation scheduling of Boro rice.
- ✚ Develop and manage irrigation processes and issues
- ✚ Development of sustainable water management technology based on agro-ecological zones in adverse weather conditions.
- ✚ Development of innovative strategies to increase water use efficiency in irrigated areas.
- ✚ Development of strategies for efficient use of water resources to increase crop productivity.
- ✚ Development of technologies for rainwater harvesting and sustainable management.
- ✚ Development of sustainable irrigation management through optimal use of groundwater with emphasis on water quality.
- ✚ Ensuring sustainable use of water resources by developing models for the associated use of surface and ground water.
- ✚ Ensuring increased productivity through proper management of water resources in saline areas.
- ✚ Ensuring optimal use of irrigation pumps through use of renewable energy.

Job Experience:

Name of the position: *Agricultural Engineer*

Organization : Enhancement of Agricultural Production and Rural Employment through Extension of Agricultural Engineering Technologies (AETEP) Project.
Department of Agriculture Extension, Government of the people's republic of Bangladesh.

❖ **Duration:** Starting From 10 June 2009 to 30 June 2011

Responsibilities:

- Farm mechanization.
- Provide technical assistance to selected farmers on organized and modern farming techniques.
- Supervision of the overall production system of different crops, especially rice.
- Water management at the field level
- A demonstration of various environmentally friendly technologies.
- Conducting training programs.
- Preparing training material for farmers and technical staff.
- Providing high-quality advice to SAAO on a range of agricultural subjects, methods, inputs, credit supplies, and technologies for onward transmission to farmers.
- Work with the field trainer to prepare promotional materials.
- Assist in organizing farmer's day/result demos to facilitate increased outreach.

Research Program Developed, Executed, and Supervised:

1. Act as a principal investigator of the research program entitled "Demonstration of supplemental irrigation application to mitigate early drought effects during T. Aus 2014."
2. Act as a co-investigator in the research program entitled "Long-term Missing Element Trial."
3. Act as a co-investigator in the research program entitled "Test and evaluation of BRRI-Prilled urea applicator."
4. Act as a principal investigator of the research program entitled "Validation and demonstration trials of BRRI varieties through IAPP in different locations."
5. Act as a co-investigator of the research program entitled "Production program of high-yielding Aus and Boro varieties under the PGB project."
6. Act as a co-investigator of the research program entitled "Demonstration of water management technologies at farmer's fields in T. Aman"
7. Act as a principal investigator of the research program entitled "Adoption and demonstration of water saving technologies at farmer's fields in Boro."
8. Act as a working scientist for the program entitled "Demonstration of BRRI dhan62 and BRRI dhan64" under Harvestplus, Bangladesh.
9. Act as a working scientist for the program entitled "Demonstration of BRRI modern varieties in different locations of the Barisal region" under the Pirojpur-Gopalganj-Bagerhat (PGB) Integrated Agricultural Development Project (IADP): BRRI Component
10. Act as a principal investigator of the research program entitled "Terminal drought mitigation through integrated approaches in T. Aman 2016."
11. Act as a principal investigator of the research program entitled "Determination of a suitable time for application of supplemental irrigation in T. Aman 2016."

12. Act as a co-investigator of the research program entitled “Study on water productivity improvement for enhancing crop production in water scarce area of North-West Bangladesh in 2017.”
13. Act as a co-investigator of the research program entitled “Performance evaluation of submergence tolerant rice variety BRRI dhan51 and BRRI dhan52 in North-West region of Bangladesh in 2017.”
14. Act as a co-investigator of the research program entitled “Validation of agricultural drought forecasting for mitigating drought in T. Aman rice in the Rajshahi region in 2023”
15. Act as a co-investigator of the research program entitled “Irrigation Scheduling of Rice (*Oryza sativa* L.) Based on Weather Forecasting in Rajshahi during Boro Season 2023–24.”
16. Act as a principal investigator of the research program entitled “Assessing the spatial heterogeneity of soil hydraulic properties in irrigated rice fields in different upazilas of Rajshahi district in 2024.”

Research Achievements/Contributions:

- ✚ To lessen early drought effects during T. Aus by using supplemental irrigation, as well as to mitigate terminal drought in T. Aman using integrated techniques. To find out when it would be best to apply supplemental irrigation in T. Aman. Disseminate BRRI-released cultivars through validation and demonstration trials to improve crop productivity, food security, and meet SDGs. A study was conducted on how to improve water productivity by increasing crop production in the water-scarce area of the north-west Bangladesh also assessed the performance of submergence-tolerant rice varieties BRRI dhan51 and BRRI dhan52 in Bangladesh's north-west region.
- **Research work during Ph.D. program:** Water Governance and Management Assessment to Improve the Production Potential in Ganges–Kobadak Irrigation Project
- **Research work during M.S. program:** Arsenic removal from drinking water using wood charcoal

Journal Publications:

A number of fourteen full-length papers have been published in national and international journals. List of publications is enclosed.

List of Publications

Full paper as **Principal Author**

- 1) **Ali, M.H.**, Islam, M.H., Huda, M.S. and Ali, M.R. 2018. Arsenic removal from drinking water using wood charcoal. *Fundamental and Applied Agriculture*, 3(3): 591–595.

Full paper as **Co-author**

- 2) Karim, M.J., Jesmin, F., **Ali, M.H.**, Islam, M.N., Mahmud, E. 2016. Variability, heritability and genetic advances for quantitative characters in T. Aman rice. *International Journal of Biological Papers*, 1(2):1–5.
- 3) Islam, M.N., Rahman, M.M., Mian, M.J.A., **Ali, M.H.** 2016. Effect of fertilizer management on NPKS leaching loss from sandy loam soil under alternate wetting and drying condition. *Bangladesh Rice Journal*, 20(1):59-64.
- 4) Karim, M.J., Jesmin, F., **Ali, M.H.**, Islam, M.N., Mahmud, E. 2016. Correlation and path coefficient analysis for quantitative characters in T. Aman rice. *Eco-friendly Agriculture Journal*, 9(11):79-82.
- 5) Islam, M.N., Saha, P.K., **Ali, M.H.**, Anik, M.F.A. 2016. Evaluation of fertilizer requirement for rice in unfavorable ecosystems of Bangladesh. *Eco-friendly Agriculture Journal*, 9(11):83-87.
- 6) Islam, M.N., Sarkar, M.I.U., **Ali, M.H.**, Islam, A., Saha, P.K. 2016. IPNS-based fertilizer management for rice in coastal zone of Bangladesh. *Bangladesh Journal of Agricultural Research*, 41(4):667-673.
- 7) Roy, P.K., **Ali, M.H.**, Kundu, P.K., Bari, M.N., Islam, M.N. 2017. Socioeconomic status and soil crop management practices of the farmers in Bangladesh. *Journal of Scientific Achievements*, 2(4):28-34.
- 8) Al-Amin, M.A., Hasan, A.K., **Ali, M.H.**, Nessa, S., Islam, M.N. 2017. Effect of mulching and organic manure on growth and yield performance of wheat. *Archives of Agriculture and Environmental Science*, 2(3):134-140.
- 9) Moula, M.S., Hossain, M.S., Farazi, M.M., **Ali, M.H.**, Mamun, M.A.A. 2018. Effects of Consecutive Two Years Tobacco Cultivation on Soil Fertility Status at Bheramara Upazilla in Kushtia District. *Journal of Rice Research an Open Access*, 6(1):190-194.
- 10) Fahim, F. A., Abu Sayed, **Ali, M. H.**, Rahman, M., Nessa, S., Rahman, S. 2019. Household Wastewater Potentiality for Irrigation in Tomato Crop Field in Bangladesh. *East African Scholars Journal of Agriculture and Life Sciences*, 2(4):185-189.
11. Parveen, S, **Ali, M.H.**, Karim, N. 2019. Study on water productivity improvement for enhancing crop production in water scare area of North-West Bangladesh. *Journal of Agricultural Engineering, IEB*. 42(2):17-25.
12. Parveen, S, **Ali, M.H.**, Karim, N. 2020. Performance evaluation of submergence tolerant rice variety BRRI dhan51 and BRRI dhan52 in North-West region of Bangladesh. *Journal of Agricultural Engineering, IEB*. 43(1):9-12.
13. S. Maniruzzaman, S.K. Debsharma, M.M.E. Ahmed, **Ali, M.H.**, M.H.R. Hera. 2021. GGE Biplot Analysis for Genotype × Environment Interaction on Yield Trait of rice in Bangladesh Irrigated Environments. *The Agriculturists*. 19(1&2):63-72.
14. Debsharma, S.K., Syed, M.A., **Ali, M.H.**, Maniruzzaman, S., Roy, P.R., Brestic, M., Gaber, A., Hossain, A. 2023. Harnessing on Genetic Variability and Diversity of Rice (*Oryza sativa* L.) Genotypes Based on Quantitative and Qualitative Traits for Desirable Crossing Materials. *Genes*, 14, 10. <https://doi.org/10.3390/genes14010010>

Training Summary:

Title	From	To	Duration (days)	Institute/Sponsoring Agency	Remarks
Organizational Structure of Upazilla level Govt. Office and their activities (Extension Field Trip)	11.6.2006	16.6.2006	7	Dept. of Agricultural Extension Education, BAU.	Successfully Completed
Production Process of Different Machineries and acquaintance with RDA Activities. (Industrial Training)	20.4.2007	29.4.2007	10	Rural Development Academy (RDA), Bogura	Successfully Completed
Service rule, Managing every aspect of a development project (Project Implementation Technique)	18.7.2009	22.7.2009	5	Central Extension Resource Development Institute (CERDI). Bangladesh	Successfully Completed
Computer Fundamental and Application	05.5.2010	25.5.2010	20	Central Extension Resource Development Institute (CERDI). Bangladesh.	Successfully Completed
Use of Farm Machinery and Efficient Irrigation System Management	05.4.2014	08.4.2014	4	Bangladesh Agricultural Research Institute	Successfully Completed
Use of Farm Machinery and Efficient Irrigation System Management	08.5.2016	12.5.2016	5	Bangladesh Agricultural Research Council	Successfully Completed
Programming R for Experimental Design and Data Analysis	01.1.2017	05.1.2017	5	Bangladesh Rice Research Institute	Successfully Completed
Modern Rice Production Training Course	04.3.2017	06.3.2017	3	Bangladesh Rice Research Institute	Successfully Completed
Water-Efficient and Climate-Smart Irrigation Management	18.2.2024	20.2.2024	3	Bangladesh Agricultural Research Council	Successfully Completed

Seminar/Conference/Workshop Participation:

- From 2014–15 to 2022–23, I participated in a five-day program called the "Annual Research Review Workshop" held at the Auditorium of the Bangladesh Rice Research Institute (BRRI) in Gazipur, Bangladesh.

Administrative and Research Responsibilities:

- Help to manage the office, farm, labor, and security management as a member of different committees.
- Purchase of various official goods and supervision of repair and maintenance activities as a committee member.

- Besides, various types of work are executed according to the instructions of the authority or R/S head.
- Supervision, collection, analysis, and compilation of different experimental data, such as irrigation and water management, soil hydraulic properties, the proposed variety trial (PVT), the regional yield trial (RYT), the observational yield trial (OYT), and stability analysis of BRRI varieties. Additionally, I carried out a number of research activities in various program areas that were delivered to regional stations for validation, adaptation, and implementation from the head office.
- Research article writing and help with the writing of the annual research review workshop report

Language Proficiency:

- Proficiency at understanding, speaking, reading, and writing Bengali and English
- The medium of instruction was English at both the B.Sc. (Agricultural Engineering) and M.S. (Farm Power & Machinery) levels.

Computer Literacy:

- Skilled on Microsoft Word, Microsoft Excel, data management, and data analysis using computer-based software packages, SPSS, R programs, STAR, Crop Stats, Microsoft Power Point, etc.

Communication:

- Excellent interpersonal and communication abilities.

Involvement in Professional Associations:

- Member of the Institution of Engineers Bangladesh.
- Member of Krishibid Institution Bangladesh.
- Member of Bangladesh Rice Research Institute Scientist Association (BRRISA).

Country Visited:

- Traveled to many districts for research and job postings

References:

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 Bangladesh Rice Research Institute
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 Bangladesh Agricultural University
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Certification:

I, the undersigned, confirm that, to the best of my knowledge and belief, this biodata accurately portrays my qualifications, job performance, and experience. I realize that any willful wrong statement specified above may result in my disqualification or dismissal if hired.

Yours sincerely

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 (Dr. Md. Hannan Ali)