

Curriculum vitae

Personal information:

Name : Mahmuda Khatun
Date of birth : 01.01.1973
Nationality : Bangladeshi
Mailing address : Principal Scientific Officer, Plant Breeding Division, BRRI, Gazipur
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Bangladesh

Educational qualification:

Degree	Division/class	Board/ University	Year of Passing
Secondary School Certificate (S.S.C)	First	Rajshahi	1987
Higher Secondary Certificate (H.S.C)	First	Rajshahi	1989
Bachelor of Science in Agriculture (B. Sc. Ag.)	First class (37 th position)	Bangladesh Agricultural University, BAU	1993
MS in Genetics and Plant Breeding	A Grade	Department of Genetics and Plant Breeding, BAU	1999
PhD	Successfully completed	Nara Women's University, Japan	2006

Training:

a. In Country:

Organization	Year	Duration		Name of programme
		Mos.	Days	
BRRI, Gazipur	1999	2		Rice production, Communication and Office management
BARD, Comilla	2001	3	15	Foundation training course for NARS scientists
BRRI, Gazipur	2002		03	Breeder seed production and preservation techniques of rice
BRRI, Gazipur	2006		05	Hybrid Rice Development and Seed Production
BARI, Gazipur	2007		03	Conservation and Utilization of Plant Genetic Resources
BRRI, Gazipur	2008		10	GCP Training Workshop on Marker-assisted Breeding for Bangladesh

BRRI, Gazipur	2011		02	GSR-Hybrid Rice Seed Production Training Course
BRRI, Gazipur	2017		04	Design and Analysis of Breeding Trials
BRRI, Gazipur	2017		02	Crossing Design of BRRI's Breeding Program using GBS Profiles
BRRI, Gazipur	2017		02	Application of Dry Store technology on rice seed
BRRI, Gazipur	2017		01	Hands-on Training on P-rep Design
NATA, Gazipur	2017		05	Food security
BRRI, Gazipur	2017		02	Bioinformatics for Sustainable Development in Agriculture, Health and Environment
BARC, Dhaka	2018		05	Project Development and Management
BRRI, Gazipur	2018		02	Practical Workshop for high-throughput sampling and analysis
BRRI, Gazipur	2018		03	Breeding for Results (B4R)
IRRI on line Training	2020		03 sessions	B4R Training
BARC, Dhaka	2023		03	Awareness Building on Act and Policies of Bangladesh Agriculture
IRRI on line Training	2024		06	Enterprise Breeding System (EBS) Adoption Training for BRRI
IRRI on line Training	2025		02	In recognition of participation in the training on sharing of best practices with BRRI for genotyping requests.

b. Abroad:

Country	Year	Duration		Name of programme
		Mos.	Days	
CAAS, China	2012		15	Molecular Breeding Technology in Crops
YAAS, China	2016		05	Upland Rice Breeding, Demonstration & Extension
IRRI, Los Banos,	2016		15	On-the-job training

Laguna, Philippines				
IGKV, Raipur, Chhattisgarh, India	2018		03	Transforming Rice Breeding: Breeding Program Modernization Initiative
International Convention Center, Manila, Philippines	2023		04	6 th International Rice Congress

Working experience:

1. Working as a scientific officer on crop quality in Bangladesh Rice Research Institute, Gazipur, Dhaka, Bangladesh from **28th February 1999- 7th February 2001**
2. Working as a scientific officer on Varietal development in Bangladesh Rice Research Institute, Gazipur, Dhaka, Bangladesh from **8th February 2001- 27th January 2007**
3. Working as a senior scientific officer on Varietal development in Bangladesh Rice Research Institute, Gazipur, Dhaka, Bangladesh from **28th January 2007-13th December 2014**
3. Working as a principal scientific officer on Varietal development in Bangladesh Rice Research Institute, Gazipur, Dhaka, Bangladesh from **14th December 2014-1st February 2026**
4. Working as a chief scientific officer on Varietal development in Bangladesh Rice Research Institute, Sirajganj, Bangladesh from **2nd February 2026- continue**

Language skill:

Graduation degree was taken in English. Bengali is mother tongue. Japanese language is fair in speaking, reading and writing (Hiragana and katakana).

Publications (46):

(a. i) Scientific Journals (27)

As Principal author (9)

1. **Khatun, M.,** A.K.M. Shamsuddin, M.S.A. Fakir, M.A. Siddiquee, A.A.Mahbub and B. Prasad. 2000. Genetic Diversity among some wheat varieties/lines. Bangladesh J. Environ. Sci.6 (2): 497-500.
2. **Khatun, M.,** A.K.M. Shamsuddin and M.S.A. Fakir. 2002. Effect of Source-Sink

- manipulation on some important sink characters in bread wheat (*Triticum aestivum* L.). Bangladesh J. Pl. Breed. Genet. 15(2): 29-33.
3. **Khatun, M.**, M. A. Rahman, S. Khatun, K.M. Akter and H. Hossain. 2006. Genetic variability, character association and path coefficient analysis in wheat The Agriculturists. 4 (1 & 2): 41-46.
 4. **Khatun, M.**, Eguchi, S., Yamaguchi, T., Takamura, H., and Matoba, T. 2006. Effect of Thermal Treatment on Radical-scavenging Activity of Some Spices. Food Sci. Technol. Res.12 (3):178-185.
 5. **Khatun, M.**, T.L. Aditya, M. A. Rahman, K. M. Iftekharuddaula and M. A. Salam. 2010. Stability analysis of advanced breeding lines of premium quality rice genotypes (*Oryza sativa* L.). Intl. J. Bio Res. 8 (2): 1-5.
 6. **Khatun, M.**, P.S. Biswas, M. A. Hossain, M. K. Hossain and H. Begum. 2010. Genetic variability, character association and path coefficient analysis of rice genotypes (*Oryza Sativa* L.). Intl. J. Bio Res. 9 (3): 36-40.
 7. **Khatun, M.**, S. Ghosal, M. R. Hasan, R. R. Majumder and H. Begum. 2011. Correlation and Path Coefficient Analysis of Rice Genotypes (*Oryza Sativa* L.). Eco-friendly Agril. J. 4 (12): 768-773.
 8. **Khatun, M.**, M M E Ahmed, M A Syed, F Akter, S Das, M E Haq and S S Dipti. 2019. Identification of Ideal Trial Sites and Wide Adaptable T. Aus Rice Genotypes Suitable for Bangladesh. Bangladesh Rice J. 23 (2). 77-85.
 9. **Khatun, M.**, H. B. Shozib., Yamaguchi, T., Takamura, H., and Matoba, T. 2021. Characterization of Antioxidant Properties of common spices and the effect of thermal treatment on their Antioxidant Activity. EC Nutrition.16 (6):13-22.

As co-author (17)

10. Siddiquee, M. A., S.K. Biswas, A.A. Mahbub and **M. Khatun**. 2002. Studies on morphological and physicochemical properties of local improved Aus rice of Bangladesh. Bangladesh J. Biochem. 8:23-30.
11. Rahman, M. A., H. Hossain, M. A. Hossain, M. K. Hossain and **M. Khatun**. 2006. Genotypic response to environment and stability appraisal in tomato. The Agriculturists. Vol. 4(1 & 2). 59-66.
12. M. A. Hossain, K.M. Akhter, M. A. Salam, **M. Khatun** and M. E. Hoque. 2007. Yield

- stability of some T. Aus genotypes. Bangladesh J. Prog. Sci & Tech. 5 (1). 173-176.
13. M. A Salam, T.L.Aditya, S.Khondker and **M.Khatun**. 2008. Aroma inheritance of aroma in Bangladesh premium quality rice (*Oryza sativa* L.). Bangladesh J. Pl. Breed. Genet. 21 (2).57-59.
 14. H. Begum, **M. Khatun**, M. A. Siddique, A Akter and M. K. Hossain. 2009. Influence of different concentration of surfactants of plant regeneration from cotyledons of *corchorus olitorius*. Eco-friendly Agril. J. 2 (4). 499-503.
 15. H. Begum, M. S. Ahmed., **M. Khatun**, A Akter and M. K. Hossain. 2009. In vitro regeneration performance of *corchorus* species. Eco-friendly Agril. J. 2 (3). 490-493.
 16. Hossain, K., A. Akter, H. Begum, **M. Khatun** and A. S. M. Masuduzzaman. 2009. Genetic Diversity and its association with heterosis in rice (*Oryza sativa* L.). Bangladesh J. Pl. Breed. Genet. 22 (2): 39-46.
 17. Aditya, T.L, M, A, Salam, H, U, Ahmed, M, R, Islam, A. R. Bhuiyan, P. S. Biswas and **M. Khatun**. 2009. BRRI dhan46: A variety for late planting in the flood-prone environment of Bangladesh. Bangladesh Rice J. 14 (1&2): 181-182.
 18. Aditya, T.L, M.A. Salam, H.U. Ahmed, **M. Khatun**, A. A. Mahbub, A.K.G.M.E. Hoque, M. A. Kader, K. M. Iftekharuddaula, M. R. Islam and A. R. Bhuiyan. 2010. BRRI dhan49: A complementary variety to BR11 and supplementary variety to BRRI dhan32 in rainfed low land rice environment. Bangladesh Rice J, Vol 15.
 19. Ghosal, S., P. L. Biswas, **M. Khatun** and S. Khatun. 2010. Genetic Variability and character association in irrigated rice (*Oryza sativa* L.). Bangladesh J. Pl. Breed. Genet. 23 (2): 23-27.
 20. Ghosal, S., M. A. Syed, **M. Khatun**, P. L. Biswas, and T. L. Aditya. 2012. Evaluation of selection criteria in premium quality rice genotypes through genetic variability, character association and path analysis. Bangladesh Rice J, Vol 16. 59-62.
 21. Majumder, R. R., R. K. Roy., **M. Khatun**, T. K. Hore, K. Nahar, U. K. Majumder. 2014. Study on outcrossing traits of some aromatic restorer lines of hybrid rice. Eco-friendly Agril. J. 7 (10): 110-114.

22. Akter Anowara, M. Jamil Hasan, Umma Kulsum, M. H. Rahman, **M. Khatun** and M. R. Islam. 2015. GCE Biplot Analysis for Yield Stability in Multi-environment Trials of Promising Hybrid Rice (*Oryza sativa* L.). Bangladesh Rice J, 19 (1): 1-8.
23. F Akter, M Z Islam, A Akter, S K Debsharma, A Shama and M Khatun. 2019. Genetic Diversity of Bacterial Blight Resistant Rice (*Oryza sativa* L.) Genotypes from INGER. Bangladesh Rice J. 23 (2). 59-64.
24. S K Debsharma, R F Disha, M M E Ahmed, M Khatun, M Ibrahim and T L Aditya. 2020. Assessment of Genetic Variability and correlation of yield components of Elite Rice Genotypes (*Oryza sativa* L.). Bangladesh Rice J. 24 (1). 21-29.
25. Sanjoy K. Debsharma, M. Akhlasur Rahman, **Mahmuda Khatun**, Ribed F. Disha, Nusrat Jahan, Md. Ruhul Quddus, Hasina Khatun, Sharifa S. Dipti, Md. Ibrahim, K. M. Iftexharuddaula, Md. Shahjahan Kabir. 2024. Developing climate-resilient rice varieties (BRRI dhan97 and BRRI dhan99) suitable for salt-stress environments in Bangladesh. PLOS ONE. 19 (1).1-26.
26. Anowara Akter^{1*}, Lutful Hassan², Sheikh Arafat Islam Nihad³, Md. Jamil Hasan¹, Arif Hasan Khan Robin², **Mahmuda Khatun**⁴, Anika Tabassum⁵, Mohammad Abdul Latif^{I*}. 2024. Pyramiding of bacterial blight resistance genes into promising Restorer BRRI31R line through marker-assisted backcross breeding and evaluation of agro-morphological and physiochemical characteristics of developed resistant restorer lines. PLOS ONE. 19 (6).1-26.
27. Sanjoy K. Debsharma, Fahamida Akter, Md. Abu Syed, Mohammad Rafiqul Islam, Mohammad Rokebul hasan, Md. Adil, Md. Ruhul Amin Sarker, Biswajit Karmakar, **Mahmuda Khatun**, 2024. Dataset on developing climate-smart transplanted *Aus* rice variety BRRI dhan98 suitable for partially irrigated ecosystem in Bangladesh. Data in Brief. ELSEIVER. Open access.

(a.ii) Books/Monographs/Bulletins

(i) Books (3)

As principal author

28. **Khatun, M.**, A.K.M. Shamsuddin and M.S.A. Fakir.1999. Evaluation of Wheat germplasm based on Source-Sink Characters. M. S. Thesis in Genetics and Plant Breeding. Bangladesh Agriculture University, Mymensingh.

29. **Khatun, M.**, T. Matoba and H. Takamura. 2006. Studies on effects of thermal treatment on Radical-scavenging activity of spices. Ph. D. Thesis. Nara Women's University. Japan.

As Co-author (1)

30. Sanjoy K Debsharma, H Khatun, **M Khatun**, AKM Shalahuddin, MA Rahman, T Halder, Popy R Roy, N Akter, and MA Syed. Application of Nanotechnology in Rice. The Nanotechnology Driven Agriculture. 1-17

(a.iii) Seminar/Workshop/ Symposium Proceedings (3)

*** International Proceedings**

As principal author

31. **M Khatun**, S K Debsharma, J Ferdousy, M R Hasan, A Rahman, M R Islam, S Abedin, A K M Shalahuddin, Mst. N Jahan, M A Rahman and K M Iftekharuddaula. Estimating Genetic Trend of Transplant Aus (T. Aus) Rice Breeding Program of BRRI. 6th International Rice Congress. International Convention Centre. Manila. Philippines. October 16-19, 2023.
32. **M Khatun**, Sanjoy K. Debsharma, M. Akhlasur Rahman, MAI Khan, M A Latif and Khandakar Md. Iftekharuddaula. BRRI dhan101: A new milestone for bacterial blight disease in Bangladesh. 6th International Rice Congress. International Convention Centre. Manila. Philippines. October 16-19, 2023
33. **M Khatun**, Sanjoy K. Debsharma, S Maniruzzaman, Md M Rashid, S Pervin and Khandakar Md. Iftekharuddaula. BRRI dhan106: A climate-resilient high-yielding transplanted-Aus (T. Aus) rice variety for non-saline tidal submergence areas of Bangladesh” is accepted for poster presentation at 7th International Conference on Environmental Sustainability and Climate Change to be held from August 19-20, 2024. Las Vegas, USA.

As Co-author (1)

34. Iftekharuddaula KM, M. A. Rahman, **M. Khatun**, MA Kader, M Anisuzzaman, Al Amin, R Yasmeen, MA Latif, MA Siddiquee, MI Hossain, MSI Mamin, M Khalequzzaman, MAB Siddique, ABS Sarker, MR Islam, M Ibrahim, MA Hossain, HU Ahmed, TL Aditya, MR Islam and MA Ali. TRB-BRRI experience in Bangladesh. Paper published in the compendium for the workshop on ‘Transforming

Rice Breeding: Cutting Edge Breeding Approaches' held at Dhaka during 23-24 October, 2017, International Rice Research Institute, Dhaka, Bangladesh.

35. Khandakar Md Iftekharuddaula, Partha Sarathi Biswas, Md. Akhlasur Rahman, **Mahmuda Khatun**, Md. Abdul Kader, Md Ruhul Amin Sarker, Sharmistha Ghosal, Mohammad Anisuzzaman, Tapas Kumer Hore, Hasina Khatun, Ratna Rani Majumder, M M Emam Ahmed, Sanjoy Kumer Debsharma Nusrat Jahan, Urmi Rani Shaha, Md. Yeakub Khan, Niaz Md Farhat Rahman, Mohammad Khalequzzaman, Md Shahjahan Kabir. Breeding program modernization through population improvement in rice. 6th International Rice Congress. International Convention Centre. Manila. Philippines. October 16-19, 2023.

*** National Proceedings**

As Principal author (2)

36. **Khatun M.**, and M. H. Kabir. 2014. Minimizing rice yield gap in Jhenaidah district. Bangladesh Rice Research Abstracts. Bangladesh Rice Research Institute, Gazipur 1701:125.
37. **Khatun, M.**, K. M. Iftekharuddaula, S. Das, S. S. Dipti, T. L. Aditya, M. A. Ali, M. R. Islam, G. N. Atlin and M. S. Kabir. Cutting-edge Approaches to develop Transplanted Aus Rice to meet the demand of SDG. Workshop on Transforming Rice Breeding: Current Status and Way Forward. ACI Centre, Dhaka. 18-20 November, 2018.

As co-author (9)

38. Salam, M.A., S. Khatun, H. U. Ahmed, T. L. Aditya, P. S. Biswas. M. A. R. Bhuiyan, M. A. Rahman and **M. Khatun**. 2006. Progress of Stopgap Variety Development and Premium Quality Rice Improvement. Paper presented in the HYV workshop, BRRI, 19-21 September, 2006.
39. Iftekharuddaula K.M., P.S. Biswas, M. Akhlasur Rahman, **M. Khatun**, M.A. Kader, M. R.A. Sarker, Sharmistha Ghosal, M.A. Latif, R. Yasmeen, T.L. Aditya and M. S. Kabir. Molecular Rice Breeding at BRRI: progress and way Forward. 4th IPFS-ICBHA. Krishi Gobeshona Foundation. 11-13 Novemver, 2019.
40. M. B. Hossain, M. A. Rashid and **M. Khatun**. 2014. Rainwater harvesting by rising

levee height in transplanted aman rice cultivation. Bangladesh Rice Research Abstracts. Bangladesh Rice Research Institute, Gazipur 1701:126.

41. Iftekharuddaula, K.M., Rahman, M.A., **Khatun, M.**, Kader, M.A., Anisuzzaman, M., Aditya, T.L., Amin, A., Islam, M.R., Atlin, G.N. and Ali, M.A. 2017. Principle and practice of transforming rice breeding concept at BRRI. Workshop on ‘Cutting edge rice breeding approaches’ on 23-24 October 2017, ACI Center, Dhaka.
42. Rahman, M.A., Iftekharuddaula, K.M., **Khatun, M.**, Kader, M.A., Anisuzzaman, M., Aditya, T.L., Quddus, M.R. Amin, A., Islam, M.R., Atlin, G.N. and Ali, M.A. 2017. Field Rapid Generation Advance (FRGA): an appropriate tool for step change breeding in rice variety development. Workshop on ‘Cutting edge rice breeding approaches’ on 23-24 October 2017, ACI Center, Dhaka.
43. Iftekharuddaula, K.M., P. S. Biswas, M. A. Hossain, M. Akhlasur Rahman, **M. Khatun**, M. A. Kader, M. R. A. Sarker, S. Ghosal, H. Khatun, R.R. Majumder, M. E. Ahmed, S. K. Debsharma, N. Jahan and M.Y. Khan. 2023. Translation of Genetics to Farmers’ Fields: Transformational Progresses and Prospects. International Symposium for 50 years. Glory and Success of Bangladesh Rice research Institute. 11 P.
44. Rahman, M.A., K.M. Iftekharuddaula, **M. Khatun**, M.A. Kader, M. R. A. Sarker, P. S. Biswas, H. Khatun, M. Khalequzzaman, M. R. Islam, G.N. Atlin, and M.S. Kabir. 2023. Field Rapid Generation Advance (FRGA): An Appropriate Tool for Step-Change Breeding in Rice Variety Development. International Symposium for 50 years. Glory and Success of Bangladesh Rice research Institute. 64 P.
45. Rahman, M.A., M. R. A. Sarker, **M. Khatun**, H. Khatun, N. Jahan, S. K. Debsharma, M.R. Quddus, R. F. Disha, K.M. Iftekharuddaula and M.S. Kabir. 2023. Salinity Tolerant Rice Varieties Recently Developed by BRRI. International Symposium for 50 years. Glory and Success of Bangladesh Rice research Institute. 68 P.
46. Iftekharuddaula, K.M., P. S. Biswas, M. A Rahman, **M. Khatun**, M. A. Kader, M. R. A. Sarker, S. Ghosal, R.R. Majumder, H. Khatun, M. R. Islam, G.N. Atlin, and M.S. Kabir. 2023. Transformation in plant breeding approaches for enhancing genetic gain in rice yield. 2nd International & 12th Biennial Conference of PBGSB 2023. Plant Breeding and Genetics Society of Bangladesh. 88 P.