CURRICULUM VITAE

a. Name : **Dr. Md. Towfiqul Islam**

b. Date of Birth : 25 December 1962

c. Nationality : Bangladeshi

d. Present Address : Irrigation and Water Management Division, Bangladesh Rice Research Institute, Gazipur

e. Permanent Address : House no. 563/A, Road no. 8**,** Adabar, Dhaka – 1207, Bangladesh

f. Education :

- Ph.D in Irrigation and water Management (Drought modeling and management for rice cultivation), Bangladesh Agricultural University, 2007
- Master of Science (MS) in Irrigation and water Management (Drought assessment and its mitigation in rice cultivation), Bangladesh Agricultural University, 1998
- Bachelor of Science (Hons.) in Agricultural Engineering (Irrigation and Water Management), Bangladesh Agricultural University, 1985

g. Designation : Chief Scientific Officer and Head IWM Division

h. First joining date : 04 August, 1988

i. Length of service : 32 years 11 months

j. Specialization :

- Agricultural Modeling
- Analysis of rainfall-drought Probability
- Water saving technology for rice cultivation
- Rainwater harvesting and supplemental irrigation

k. Job Description: Planning, designing, execution of research program on water management in rice based cropping system, report writing and guidance of junior scientists (SOs) in the research activities; helps to the Divisional head in research-policy matters; participate as resource speaker in training organized by BRRI, DAE, BWDB etc. I was also involved in training operation cell of BRRI for doing administrative work; helping Director (Research) in preparing research program and achievement of the BRRI.

l. Experience: Working at IRRI-BRRI- BWDB, RLRRC, IFAD, BMG, etc. projects as active scientist.

m. Other relevant experience(s):

- Member of National Advisory Technical Committee (NATC)
- Trainer in agricultural field;
  - i) I regularly take class on 'Irrigation and Water management in rice production' in 'rice production training' organized by BRRI. The participants of this training program are DAE's officer and Scientific Officer of BRRI.
  - ii) I trained DAE's officer on "Supplemental irrig. and rain water harvest for drought mitigation in T.aman" in Irrigation & Water Management training program organized by NATA project held in 2007, 2008, 2009 and 2010 at CERDI, Gazipur.

iii) I trained Executive Engineer, Sub Divisional Engineer and Senior Extension Officer of Bangladesh Water Development Board (BWDB) on a. Basic concept of Water management for rice production, b. Rotational irrigation, its importance for rice production & irrigation scheduling, c. Water requirements & water management at different stages of rice plant and d. rain water harvesting in 'Water Management for Rice Production training' held in 2006, 2007 and 2008 at IETC, BWDB, Kushtia.

n. Training Information:

In country Training:

i) Risk management in water resources, 13-14 March 2010, Organized by Directorate of Continuing Education (DCE) and Institute of Water and Flood Management (IWFM), BUET, Dhaka.
ii) Integrated water management (IWRM) practice in Bangladesh: Case study of IPSWAM, 17-22 January 2009. Organized by IPSWAM, BWDB, BWP and CEGIS, Dhaka.
iii) One-Week Rice production training course, 5-12 June 2008. Organized by BRRI, Gazipur.
iv) TOT course on IWRM, 9-14 December 2007. Organized by IPSWAM, BWDB, BWP and CEGIS, Dhaka.
v) Climate risk, management and adoption in Bangladesh, 27-29 March 2007. Organized by Climate cell, UNDP, & DFID, Dhaka.
vi) Monitoring and early warning of drought, 28-30 November 2005. Organized by SAARC Meteorological Research Centre (SMRC), Dhaka.
vii) AEZ/GIS Database management and it's application in agriculture, 14-27 October 2001. Organized by BGD/95/006:GIS, BARC, Dhaka.
viii) Statistical design and analysis, 8-23 November 1994. Organized by BRRI, Gazipur
ix) Scientific report writing, 21 Augu.- 5 Sep. 1993. Organized by BRRI, Gazipur.
x) Computer training program, 30 March – 15 April 1991. Organized by BRRI, Dhaka.
xi) Rice production specialist training, 3 October 1990 – 3 January 1991. Organized by BRRI, Gazipur.
xii) Research planning and evaluation, 11 – 26 Feb. 1990. Organized by BRRI, Gazipur.
xiii) Irrigation and water management training for rice production, 27 Feb. – 18 March 1990. Organized by BRRI, Gazipur.

Foreign Training:

i) Improving agricultural productivity and net returns among smallholder farmers through efficient use of nutrients and water, 6-10 December 2010. Organized by IFDC and Can Thu University, Vietnam.
ii) Drought screening for rice genetic improvement, 10-15 November 2008. Organized by BILL & MELINDA GATES foundation and Birsa Agricultural university, Jharkhand, India.
iii) Irrigation and rice production technique, 8 Jan – 15 Feb. 1996. Organized by Indonesia Govt. and Indonesian Agricultural training center, Indonesia.
iv) Irrigation and water management training, 27 August – 15 October 1990. Organized by IRRI, Philippines.

O. In country Seminar/ Workshop:

i) National workshop on Adoption and success of AWD technology for rice production, 15 July 2009. Organized by BRRI, IRRI & KGF, Gazipur.
ii) Planning Workshop on Stress Tolerant Rice for Poor Farmers of Africa and South Asia, 21-22 April 2009. Organized by BILL & MELINDA GATES Project, BRRI, Gazipur.
iii) Paper meet of Agricultural Engineering Division, The Institute of Engineers, Bangladesh (IEB), 14 June 2008. Agricultural Engineering Division, IEB, Dhaka.

iv) Environment Conference 2008, Financing for climate change – Challenge & way forward, 16-17 August 2008. Organized by Unnayan Onneshan, LGED, Dhaka.

v) International Conference on Agricultural Engineering & Technology, 15-18 December 1997. Jointly organized by Bangladesh Society of Agricultural Engineers, American Society of Agricultural Engineers, National Agricultural Research System of Bangladesh and Bangladesh Agricultural University. BARC, Dhaka.

vi) Regional seminar on Water management practice, 21-22 November 1991. Organized by FEISCA and IEB. Dhaka.

P. Foreign Seminar/ Workshop/Study visit:

i) Study tour as a part of PhD program, 16 Feb. – 4 March 2004. Visiting places were Kolkata, Delhi, and Punjab of India. Sponsored by IRRI-PETRA.

ii) Workshop on "Prospects and Limitation of On-farm rain water storage and conservation for improving productivity of rainfed riceland" held at Semarang, Central Java, Indonesia, 8-13 February, 1993. Sponsored by IRRI.

Q. List of publication

- Scientific paper in Journal

1. **M T Islam and J K Biswas.** Natural hazard management. Journal of Agricultural Engineers, Bangladesh. Vol.38/AE Number 1, 2010.
2. **M T Islam**, L R Khan and K M Hassanuzzaman. Integrated Approach for Minimizing Drought in Transplanted Aman Rice in Northwest Region of Bangladesh. Bangladesh Rice Journal. Vol.14 (1&2); 169-173, 2009.
3. **M T Islam**, L R Khan and K M Hassanuzzaman. Drought effect on transplanting date for Aman rice. Echo-friendly Agriculture journal. An International Journal of Agriculture and Environmental Science. Vol. 1, No.1; 10-13, 2008.
4. **M T Islam**, K M Hassanuzzaman and L R Khan Drought simulation model for Aman rice cultivation in northwest region of Bangladesh. Journal of Agricultural Engineering (IEB) Vol. 33/AE, 37-42, 2007.
5. **M T Islam** and L R Khan. Water stress analysis of transplanted Aman rice in Barind area. Journal of the Institute of Engineers, Bangladesh Agricultural Engineering Division. Vol. 29/AE, No.1; 21-27, Dec. 2002.
6. **M T Islam**, L R Khan and M Mairuzzaman. Relationship of rainfall and drought in rainfed rice cultivation in Barind area. Bangladesh J. Agril. Engg. Vol.13 (1&2);43- 53, 2002.
7. **M T Islam**, L R Khan and M Mairuzzaman. Chances of drought in transplanted Aman rice cultivation in Barind area. Bangladesh Rice Journal. Vol.10 (1&2); 43-53, 2002.
8. **M T Islam**, A F M Saleh and Sadiqui I Bhuiyan. Agro-hydrologic and economic analysis of On-farm reservoirs for drought alleviation in rainfed ricelandsof northwest Bangladesh. Rural and Environmental Engineering Journal. Vol.35;15-26, 1998. Japan.
9. **M T Islam,** L R Khan and K M Hassanuzzaman**.** Probability of Drought in Transplanted Aman Rice in Northwest Region of Bangladesh. (Published in Bangladesh Rice Journal).
10. **M T Islam** and S Islam**.** Effect of drought. **(Published in** Bangladesh J. Agril. Engg. Vol., 2010.)
11. **M T Islam** and M. H. Khan Choudhury**.** Irrigation cost Reduction Using PVC pipe Distribution System in Deep Tube Well. Journal of the Institute of Engineers, Bangladesh Agricultural Engineering Division. Vol. 29/AE, No.1; 5-8, JuneDec. 2011.
12. Debjit Roy, **M.T. Islam** and B.C. Nath. Impact of Supplemental Irrigation Applied at Different Growth stages of Transplanted Aman Rice. A Scientific Journal of Krishi Foundation, The Agriculturists 8(1); 109-114, 2010.
13. M S Islam, M A R Sarkar, K P Halder and **M T Islam**. Yield and yield components of rice as influenced by spacing seedling age and seedling density under the modified system of rice intensification. Echo-friendly Agriculture journal. An International Journal of Agriculture and Environmental Science. Vol. 2, No.11; 940-945, 2009.
14. M Maniruzzaman, M M Alam, F I M Golam Wahed Sarker, **M T Islam** and M N Islam. Water saving techniques through improved water distribution system in deep tube well area of Bangladesh. Journal of Biological Sciences. vol.2 (3); 178-182, 2002.
15. M Maniruzzaman, M S U Talukder, M A Satter and **M T Islam**. Performance of the flexible hose pipe for water distribution from shallow tube well. Journal of the Institute of Engineers, Bangladesh Agricultural Engineering Division. Vol. 29/AE, No.1; 11-19, Dec. 2002

16. M. Maniruzzaman, M M Alam, F. I .M. Golam Wahed Sarker, **M T Islam** and M N Islam. Alternate water distribution system in a selected deep tube well site an economic evaluation. Bangladesh Rice Journal. Vol.10 (1&2); 67-73, 2001.
17. M. Maniruzzaman, M. S. U. Talukder, M. A. Satter and **M T Islam**. Economic performance of the flexible hose pipe for irrigation water distribution from shallow tube well. Journal of Bangladesh Agricultural Engineering. Vol.11 (1&2);23-27, 2000.
18. M. N. Islam, M. A. Satter, G. Mowla, Mondal, Nazrul Islam, M. A. Rashid, M. N. Hossain, H R Mollah, M A Khan, **M T Islam** and N J Joarder. Water management for higher productivity in rice-based cropping system under irrigated environment. Bangladesh Rice Journal. Vol.7 (1&2); 11-15, 1996.
19. G. Mowla, **M. T. Islam**, M N Islam and Nazrul Islam. Impact of rotational irrigation practice in rice. Bangladesh Rice Journal. Vol.5 (1&2); 47-52, 1994.
20. M. K. Mondal, M. N. Islam, G. Mowla, **M T Islam** and M A Ghani. Impact of on farm water management research on the performance of gravity irrigation system in Bangladesh. Journal of Agricultural Water Management, 23,1993. 11-22.C 1993, Elsevier Science Publishers B.V. **Netherlands.**
21. G. Mowla, M. K. Mondal, M. N. Islam and **M. T. Islam**. Farm level water utilization in an irrigation project. Bangladesh Rice Journal. Vol.3 (1&2); 51-56, 1992.

22. Hossain, M.B., D. Roy**,** P.L.C. Paul and **M.T. Islam**. 2016. Water productivity improvement using water saving technologies in Boro rice cultivation. Bangladesh Rice J. 20(1): 17-22

- Scientific paper in Workshop/ Seminar

1. **M. T. Islam**, M. Siddiqui, M. N. Hassan. use of On-farm reservior for drought alleviation in the rainfed rice lands of the Barind area of Bangladesh. Workshop held at Semarang, Central Java, **Indonesia** in 1993.

2. **M. T. Islam**, A. F. M. Saleh and S. I. Bhuiyan. Feasibility of On-farm Reservoir for drought Alleviation in the rainfed Rice Lands of the Barind Area. Proceedings of the Joint International Conference on Agricultural Engineering & Technology. Vol. III, 1997. Jointly organized by Bangladesh Society of Agricultural Engineers, American Society of Agricultural Engineers, National Agricultural Research System of Bangladesh and Bangladesh Agricultural University.
3. **M. T. Islam,** L.R. Khan and K. M. Hassanuzzaman. Drought Simulation Model for Aman Rice Cultivation in Northwest Region of Bangladesh. Proceedings of Paper meet of Agricultural Engineering Division, The Institute of Engineers, Bangladesh (IEB) 2008.
4. H. U. Ahmed, M. R. Siddiqui, **M. T. Islam**, H.A. Qyuam, N. Hassan. Crop management and varietal characteristics needed to minimize drought stress for Rainfed Low land Rice Workshop held at Semarang, Central Java, **Indonesia** in 1993.
5. M. K. Mondal, M. N. Islam, G. Mowla, **M. T. Islam** and M. A. Gani. Water Management for the Ganges-Kobadak Irrigation Project in Bangladesh. Regional seminar on Water Management Practice, Jointly organized by Federation of Engineering Institutions of South and Central Asia (FEISCA) and The Isntitution of Engineers, Bangladesh (IBE) in 1991.

6. M N Islam, LR Bhuiyan, M. J. Islam, M. A. Rashid, M. N. Islam, M. N. Hassan, M.K. Mondel G. Mowla, M A Kashem Khan, **M. T. Islam** and N Joarder. Workshop on Experience with modern rice cultivation. Organized by BRRI in 1991.
7. M S Rashid, M A Sattar, M N Hassan, **MT Islam** and N Joarder. State and scope of Mechanization and water Management in Rice Production. Workshop on Experience with modern rice cultivation. Organized by BRRI in 1993.

Book

1. **M T Islam,** Analysis of Rainfall Drought for Transplanted Aman Rice Cultivation in Barind Area. MS thesis in Irrigation and Water Management. Bangladesh Agricultural University, Mymensingh. 2000.
2. **M T Islam,** Drought Modeling for Aman Rice in the Northwest Region of Bangladesh. PhD Dissertation in Irrigation and Water Management. Bangladesh Agricultural University, Mymensingh. 2007.

r. List of research program/ executed as Program Leader/ Co- Investigator/team Member

As Principal-Investigator

1. Development of drought simulation model
2. Effect of drought on transplanting date in T. Aman
3. Effect of drought on growth duration of T. Aman varieties
4. Bund management for drought minimization in T.Aman cultivation
5. Drought probability in T. Aman cultivation in northwest region
6. Drought assessment and mapping through GIS at nine locations of northwest region
7. Drought quantification and minimization in T. Aman in the northwest region
8. Effect of drought on growth stages of Aman varieties
9. Determination of relative water supply (RWS) for rainfed Aman rice
10. Improvement of water distribution system in minor irrigation project
11. Analysis of drought and its alleviation using on farm-reservoir
12. Levee management for rain water utilization in T. Aman rice cultivation
13. Improvement of water distribution system by using PVC and plastic pipe method

As Co- Investigator

14. Advance yield trial under drought at reproductive phase
15. Rainwater harvesting for crop cultivation in the coastal region of Bangladesh
16. Assessment of groundwater resources and safe utilization in different geo-hydrological region
17. Effect of different water management practice on rice yield

s. List of Technology developed:

1. Drought simulation model
2. Design of new on-farm reservoir for harvesting rain water for T. Aman cultivation in northwest region of Bangladesh.
3. PVC Pipe irrigation distribution system in DTW
4. Integrated approach for drought management in T. Aman cultivation

t. Membership of Professional Societies:

Bangladesh Society of Agricultural Engineers (BSAE)
The Institute of Engineers, Bangladesh (IEB)
Krishibid Institution, Bangladesh (KIB)
BRRI Scientist Association (BRRISA)

Candidate's Signature
Date: