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Areas of Expertise

Undertaking Research
Forest Resource Assessments
Forest Inventory and Mensuration
Data Collecting Techniques
Data Analysis and Validation
Surveys
Reporting Skills
Academic Research

ACADEMIC

1989	B. Sc. (Mathematics and Statistics)	*University of Chittagong*
1991	M. Sc. in Pure Mathematics	*University of Chittagong*
2009	M. Phil in Forest Biometrics	*RCMPS, University of Chittagong*
2018	Ph D in Forest Biometrics	*JNIRCMPS, University of Chittagong*

DESCRIPTION OF DUTIES

- Generation of information technology for forest resource assessment and management.
- Preparation of mathematical models and tables for tree biomass and volume determination of different indigenous and exotic plantation species.
- Studies on the growth and yield of selected tree species in plantations and natural forests.
- Evaluation and analysis of data of different provenience and species; elimination trials.
- Design and supervision of data collection
- Data compilation and Analysis
- Evaluation of plantations of selected sites
- Survey and documentation of flora of any designed vegetation.
- Preparation of reports

OTHER TRAINING

- 2014, 04 days **"Adaptation to Change Including Climate Change Issues"**

  Organized by Arannayk Foundation and ICIMOD

- 2013, 02 days Training Workshop on **"Consultation on Land cover classification in the contexts of REDD+ in Bangladesh."** *Organized by FAO and Bangladesh Forest Department*

- 2013, 02 days Training Workshop on **" Land cover classification in the contexts of REDD+ in Bangladesh"** *Organized by FAO and Bangladesh Forest Department*

- 2013, 04 days Training Workshop on **"GHG Inventory Preparation for Forestry"** *Organized by FAO and Bangladesh Forest Department*

- 2010, one week training programme on "**Econometric Analysis through Different Computer Softwares"** *Organized by Bangladesh Agriculture Research Council*

- 2010, two weeks training programme on **"Training of Trainers"** *Bangladesh Public Administration Training Centre, Saver, Dhaka.*

- 2006, one week training programme on **"Forestry Research in Bangladesh"** *Organized by Bangladesh Forest Research Institute*

- 2005, Two weeks training programme on **"Forestry Research Methodology"** *Organized by IFSCU, University of Chittagong/Inter Co- operation//Bangladesh Forest Research Institute*

- 2005, Two weeks training programme on **"Statistical Analysis by Using Computer Packages"** (Including SPSS, Excel and MstatC).*Organized by Bangladesh Agriculture University/BARC, Bangladesh*

- 2005, Two months training programme on **"English Language Proficiency"** *Organized by British Council, Chittagong*

- 2005, One week training Workshop on **"Forest Resource Assessment"** *Organized by FAO and Bangladesh Forest Department*

- 2000, One week training programme on **"Bamboo Propagation and Management"** *Organized by Bangladesh Forest Research Institute*

RESEARCH PUBLICATION

Scientific Articles

1. Hossain, M.; Siddique, M.R.H.; Abdullah, S.M.R.; **Islam, S.M.Z.**; Matieu, H.; Iqbal, M.Z. & Akhter, M. (2020). Semi-Destructive Method to Derive Allometric Aboveground Biomass Model for Village Forest of Bangladesh: Comparison of Regional and Pan-Tropical Models. *Journal of Tropical Forest Science* 32(3): 246–256. *Forest Research Institute Malaysia*. https://doi.org/10.26525/jtfs2020.32.3.246

2. Hossain, M.; Hosen, M.F.; Siddique, M.R.H.; Abdullah, S.M.R.; **Islam, S.M.Z.**; Matieu, H.; Iqbal, M.Z. & Akhter, M. (2020). Allometric Biomass Model for *Aquilaria Malaccensis* Lam. in Bangladesh: A Nondestructive Approach. *Journal of Sustainable Forestry*. Taylor & Francis. https://doi.org/10.1080/10549811.2020.1792934

3. Hossain, M.; Siddique, M.R.H.; Abdullah, S.M.R.; Saha, C.; **Islam, S.M.Z**.; Iqbal, M.Z., & Akhter, M. (2020). Development and Evaluation of Species-Specific Biomass Models for Most Common Timber and Fuelwood Species of Bangladesh. Open Journal of Forestry, 10, 172-185. https://doi.org/10.4236/ojf.2020.101012

4. Hossain, M.; Siddique, M. R. H.; **Islam, S. M. Z**.; Abdullah, S. M. R.; Matieu, H.; Iqbal, M. Z. and Akhter, M. 2019 Applicability of semi-destructive method to derive allometricmodel for estimating aboveground biomass and carbon stock in the Hill zone of Bangladesh. *Journal of Forestry Research*. Springer. https://doi.org/10.1007/s11676-019-00881-5

5. **Islam, S. M. Z**., Chowdhury, M. A and Misbahuzzaman, K. 2018. Models for Measuring Height-Diameter Relationships for Agarwood (*Aquilaria malaccensis* Lamk) Plantations in Bangladesh. *Journal of Tropical Forestry and Environment*, 8(2): 42-53. *ISSN 2235-9370 Print/ISSN 2235-9362 Online ©2017 University of Sri Jayewardenepura*

6. **Islam, S. M. Z**., Chowdhury, M. A and Misbahuzzaman, K. 2018. Mathematical Models for Estimating Tree Site Index for Agar tree (*Aquilaria malaccensis* Lamk) Plantations in Bangladesh. *Indian Forester,* 144 (12) : 1172-1178, 2018 http://www.indianforester.co.in

7. **Islam, S. M. Z**. and Chowdhury, M. A, 2017. Equation for Estimating Stem Volume for Agar tree (*Aquilaria malaccensis* Lamk) Grown in the Plantations in Bangladesh. *Journal of Tropical Forestry and Environment*, 7(2): 91-101. ISSN 2235-9370 Print / ISSN 2235-9362 Online ©2017 University of Sri Jayewardenepura.

8. **Islam, S. M. Z.**, and Ullah, M. Rahmat 2017. Allometric relationships for estimating stem volume of rubber tree (*Hevea brasiliensis* Muell-Arg.) in Bangladesh. *Open Access Journal of Science* 1(1): 00006. DOI: 10.15406/oajs.2017.01-06

9. Alam, M.J, **Islam, S. M. Z**. and Rahman, M.M. 2017. Cultivation, production and management techniques of broom grass (THYSANOLAENA MAXIMA Roxb.) in hilly areas of Bangladesh. *Agriculture and Natural Resources* 51 (1): 20 – 24.

10. Alam, M.J, **Islam, S. M. Z.**, and Shahjahan, M. 2013-2015. Effect of spacing on production and yeild of broom grass (*Thysanolaena maxima*) in the hilly area of Chittagong and Chittagong Hill Tracts. *Bangladesh Journal of Agriculture*. 38-40: 73-79

11. Haider, R.; Rahman, M. M.; Khair, A. and **Islam, S. M. Z**. 2013. Composition and diversity of tree species in the Moulabi Bazer forest areas of Syhet North Forest Division. *Journal of Forest Science*. 32 (2): 49-60

12. Ullah, M. Rahmat, Amin Al Mohammad and **Islam, S. M. Z**. 2013. Carbon stock in 18-year old three plantation tree species in the Tankawati forest of Bangladesh. *Journal of Forest Science*. 32 (2): 66-73

13. Alam, M.J, Bhowmik, N.G., **Islam, S. M. Z.**, Ali, M.R. and Shahjahan, M. 2012. Performance of germination, growth and nodulation of legumenous tree under nursery condition. *Bangladesh Journal of Agriculture*. 37 (1): 77-81.

14. **Islam, S. M. Z.**, Khan, M.I and Ahmed, K.U 2012. Volume Equations and Tables for Rajkoroi (*Albizia richardiana* King and Prain) Planted in The Southern Part of Bangladesh. *Bangladesh Journal of Forest Science*. 32 (1): 28-39.

15. Latif, M.A and **Islam, S. M. Z**. 2000. Growth rate of Sissoo, Koroi Aashmoni, Babla Mahogany and Raintree planted in Embankments and Roadsides in the Coastal areas of Bangladesh. *Bangladesh Journal of Forest Science*. 30 (1): 52-57.

16. Das, S: **Islam, S. M. Z**. and Latif, M. A. 2000. Initial growth models for *Swietenis macrophyla* King planted in Chittagong City areas of Bangladesh. *Bangladesh Journal of Forest Science*. 29 (1): 48-52.

Book/Bulletine/Mimeograph

1. Mahmood, H., Siddique, M.R.H., Abdullah, S.M.R., Akhter, M. and **Islam, S.M.Z.** (2016). Manual for Building Tree Volume and Biomass Allometric Equation for Bangladesh. *Bangladesh Forest Department and Food and Agricultural Organization of the United Nations, Dhaka, Bangladesh.*

2. Latif, M. A., Ahmad, I. U., Hasan, M. E., **Islam, S. M. Z**., and Alam, I. 2015, Methodology, Guideline & Manual for Allometric Volume Equation, Technical Study for Land Use Mapping, Assessment and Monitoring of Proposed Afforestation and Reforestation Sites (Package CRPARP BFD/S-3), *IUCN, Bangladesh*, 36 pp

3. **Islam, S. M. Z**., Khan, M.I and Ahmed, K.U 2014. Mathematical Volume equation and Table of Rubber tree, (*Hevea brasiliensis.* Muell Arg.), Bulletin No. 10. *Forest Inventory Division. Bangladesh Forest Research Institute*, P. O. Box-273, Chittagong - 4000, Bangladesh. 24 pp

4. Latif, M.A and **Islam, S. M. Z**. 2014. Growth, Yield, Volume and Biomass Equation and Tables for Important Trees in Bangladesh. *Forest Inventory Division. Bangladesh Forest Research Institute*, P. O. Box-273, Chittagong - 4000, Bangladesh. 113 pp (Book)

5. Haider**,** M. R., Islam, S. A, Rahman M. M., Ahmed K. U and **Islam, S. M. Z.** 2012. Fruit tree species of coastal homesteads in Bangladesh. Bulletin No. 1. *Homestead tree series. Bangladesh Forest Research Institute*, P. O. Box-273, Chittagong - 4000, Bangladesh.

6. Latif, M.A and **Islam, S. M. Z**. 2004. Timber and fuel wood volume tables *for Acacia auriculiformis, A. mangium, Eucalyptus camaldulensis and Dalberzia sissoo* in plantations in Bangladesh. *A joint work of Forestry Sector Project, Bangladesh Forest Department and Bangladesh Forest Research Institute, Chittagong, Bangladesh*. P38. . (Mimeograph).

7. Latif, M. A. and **Islam, S. M. Z.** 2000. Volume Tables for 11 Important Tree Species Grown in the Home Gardens of Bangladesh. ARMP project, *Bangladesh Agricultural Research Council*.(Mimeograph) 30 pp

8. Latif**,** M. A., Islam, M. S. And **Islam, S. M. Z.** 1999. Volume tables for sissoo, koroi, mahogany, eucalypts and bokain planted on croplands in the north and western parts of Bangladesh. *Village and Farm Forestry Program, Swiss Agency for Development and Cooperation, Dhaka, Bangladesh*.(Mimeograph) 23 pp

9. Latif**,** M. A., Islam, M. S. And **Islam, S. M. Z.** 1999. Volume tables for sissoo, koroi, akashmoni, babla, and mahogany and rain tree planted on embankments and road sides in the coastal areas of Bangladesh. Bulletin No. 9. *Forest Inventory Division. Bangladesh Forest Research Institute*, P. O. Box-273, Chittagong - 4000, Bangladesh. 24 pp

Thesis

1. **Islam, S. M. Z**.2006. Mathematical Model of Growth and Yield of *Swietenis macrophyla* King (Mahogany) Planted in Bangladesh. M. Phil thesis. *Research Centre for Mathematical Physical Science (RCMPS), UniversitSy of Chittagong*. 130pp

2. **Islam, S. M. Z**., 2018. Mathematical Models for Growth, Yield and Carbon Storage of Agar (*Aquilaria malaccensis* Lamk.) Plantations in Bangladesh. Ph D dissertation. *Jamal Nazrul Islam Research Centre for Mathematical Physical Science (JNIRCMPS), University of Chittagong*. 181pp

Proceeding

1. **Islam, S. M. Z. 2015**. Allometric Models for Growth, Yield and Carbon Storage of Agar tree (*Aquilaria malaccensis* Lamk.) Plantation in Chittagong and Cox's Bazar forest area. *Proceeding of the National Workshop* on Cultivation of Agar and Development of Agar Industry in Bangladesh. 20 April, 2016, CIRDAP Auditorium, Dhaka, Bangladesh. Organized Bangladesh Forest Research Institute, 49-58 pp.

2. **Islam, S. M. Z. 2015**. Comparative Growth and yield of *Eucalyptus camaldulensis* in Bangladesh. *Proceeding of the Workshop* on Impact of *Eucalyptus* Plantations in Bangladesh. 18 April, 2015, Bangladesh Forest Research Institute, 30-38 pp.

List of Participation in International Seminar

1. **Regional Exchange workshop on forest monitoring and assessment**, 7-10 May 2018, Grand Sultan Tea Resort and Lawachara National Park, Sylhet, Bangladesh,
2. **Sixth Chittagong Conference on Mathematical Physics**, 8-10 January 2001 Organized by *Research Centre for Mathematical and Physical Sciences, University of Chittagong*
3. **Fourth Chittagong Conference on chemical Physics**., 12-13 January 2001 Organized by *Research Centre for Mathematical and Physical Sciences, University of Chittagong*
4. **Fourth Chittagong Conference on Mathematical Economics and its Relevance for Development,** 30-31 December 2001 Organized by *Research Centre for Mathematical and Physical Sciences, University of Chittagong*
5. **Conference of the History of Science in Asia**, 2-3 January 2001 Organized by *Research Centre for Mathematical and Physical Sciences, University of Chittagong*