Dr. Muhammad Haroon U Rashid (Gold Medalist)

Assistant Professor (HEC Approved Supervisor)

Department of Forestry and Range Management, University of Agriculture Faisalabad, 38000, Pakistan

USDA Foreign Agricultural Services Fellow

Department of Forestry (Global Observatory for Ecosystem Services) Michigan State University, United States of America

: 0000-0003-4035-1561



Google Scholar : https://scholar.google.com/citations?user=OLxzLSEAAAAJ&hl=en

Telephone No : +92-334-1752975

D.O. B : 1993-08-27

Language : English (Proficient), Chinese (fair)

Research Interest

ORCID

Forest Ecology, Forest Cultivation, Root Architecture, Environmental Forestry, Agroforestry

Academics

2022-2023 **Fellowship**

Department of Forestry, Michigan State University, USA.

Title: The Importance of Landscapes with Trees Outside of Forests for

Climate-Smart Agriculture in South Asia **Mentor:** Dr. David Skole (Professor)

2017-2021 **PhD** Forestry (Forest Ecology/Silviculture)

Major Forest Cultivation

Fujian Agriculture and Forestry University, China

Thesis title: Response of root cambium and plant growth characteristics of

different Chinese fir clones to low-phosphorus stress

Supervisor: Dr. Pengfei Wu (Professor)

2015-2017: **M.Sc. (Hons)** Forestry

University of Agriculture, Faisalabad, Pakistan

Thesis title: Growth Response of "Dalbergia sissoo" (Shisham) stumps

against soil compaction

Supervisor: Dr. Muhammad Asif

2011-2015 **B.Sc. (Hons)** Agricultural Forestry

University of Agriculture, Faisalabad, Pakistan

Supervisor: Prof. Dr. M. Tahir Siddique (Ex. Chairman)



Experience:

2022- continue	Assistant Professor Department of Forestry and Range Management, University of Agriculture, Faisalabad, Pakistan.
2023- 2023	Foreign Agricultural Services Research Fellow Michigan State University, United States of America
2017- 2021	 Researcher Chinese fir Engineering Technology Research Center of the State Forestry and Grassland Administration, China. Fujian Provincial Colleges and University Engineering Research Center of Plantation Sustainable Management, China. Forest and Environment Institute FAFU, China
2019- 2020	Teaching Assistant College of Forestry, Fujian Agriculture and Forestry University, China.
2019- 2020	Resident Assistant International College, Fujian Agriculture and Forestry University, China.
Feb 2015- May 2015	Internee Forestry Development Internship, Punjab Forest Research Institute (PFRI) Faisalabad, Pakistan.

Projects Worked in

- National Natural Science Foundation of China (31370531, 31600502 and 31870614).
- National Natural Science Foundation of China (31870614 and 30970451).
- Science and Technology Major Project of Fujian Province, China (2018NZ0001-1).
- Special Technology Innovation Foundation of Fujian Agriculture and Forestry University (CXZX2016059, CXZX2017112).
- Key Program of Natural Science of Fujian Province, China (2020J02029).
- Endowment Fund Secretariat, University of Agriculture, Faisalabad (grant number TT113/16).

Supervision of Research Students

	Supervised		Under-Supervision	
	Supervisor	Member	Supervisor	Member
MSc. (Hons.)	4	4	4	10
Ph.D.	0	0	1	1

International Academic Awards

2024-2025	"Digital Green Talent Award" awarded by the Ministry of Education and Research, Germany.
2017-2021	Awarded with International Scholarship of Fujian Agriculture and Forestry University, China for Ph.D. Degree.

2015-2016 "Silver Award" from National Taiwan University in Action Project Competition (GIS Taiwan Symposium 2015).

National Academics Awards

2015-2017 Awarded with PEEF Scholarship from University of Agriculture Faisalabad for M.Sc. (Hons) Degree.

Research Publications (1st Author)

- 1. **Rashid, M. H.** U., Li, Y., Farooq, T. H., Ahmad, I., Nawaz, M. F., Sohail, M., & Wu, P. (2024). Influence of Cambium Mechanism in Plants in Relation to Different Environmental Stresses. Polish Journal of Environmental Studies, 33(1).
- 2. **Rashid, M. H. U.,** Guo, H., Zheng, S., Li, L., Ma, X., Farooq, T. H., ... & Wu, P. (2022). Effects of low phosphorus availability on root cambial activity, biomass production and root morphological pattern in two clones of Chinese fir. Forestry, 96(1), 76-86.
- 3. **Rashid M.H.U.**, Tigabu, M., Chen, H., Farooq, T.H., Ma, X. and Wu, P., 2020. Calcium-mediated adaptive responses to low phosphorus stress in Chinese fir. *Trees*, pp.1-10.
- 4. **Rashid M.H.**U., Farooq TH, Iqbal W, Asif M, Islam W, Lin DC, Ahmad I, Wu P (2020) Role of indole acetic acid on growth and biomass production of athel tree (*Tamarix aphylla*) by using different cutting lengths. Applied Ecology and Environmental Research. 18(3):3805-3816.

5. **Rashid M.H.U.**, Asif M, Farooq TH, Gautam NP, Gilani MM, Nawaz MF, Irfan A, Wu P (2019) Cuttings Growth Response of *Dalbergia Sissoo* (Shisham) to Soil Compaction Stress. Applied Ecology and Environmental Research. 17(1): 1049-1059.

Research Publications (Corresponding Author)

- 1. Rouf, S, Nawaz, M.F., Afzal, I., Gul, S., Sarwar, A., Noreen, A., Ahmad, I., Sohail, M., **Rashid, M.H.U***. (2024). Response of *Albizia lebbeck* Seeds to Various Seed Invigoration Techniques under Salt Stress. International Journal of Forest Sciences, 4(2): 154-164
- 2. Ahmad, I., Mazhar, K., Atiq, M., Khalaf, A. K., **Rashid, M. H. U***., Asif, M., ... & Al-Otaibi, H. S. (2024). Epidemiology and management of Fusarium wilt of *Eucalyptus camaldulensis* through systemic acquired resistance. PeerJ, 12, e17022.
- 3. Asif, M., Nawaz, M. F., Ahmad, I., **Rashid, M. H. U***., Farooq, T. H., Kashif, M., ... & Li, Q. (2023). Detrimental Effects of Induced Soil Compaction on Morphological Adaptation and Physiological Plasticity of Selected Multipurpose Tree Species. Plants, 12(13), 2468.
- 4. Shahbaz, Z., Asif, M., Atiq, M., Ahmad, I., Wu, P., Hafeez, S., ... & Rashid, M. H. U*. (2023). Antifungal Potential of Synthetic Chemicals and Phytoextracts towards Leaf Spot of *Pongamia pinnata*.
- 5. Nawaz MF, **Rashid MHU***, Saeed-Ur-Rehman M, Gul S, Farooq TH, Sabir MA, Iftikhar J, Abdelsalam NR, Dessoky ES, Alotaibi SS. Effect of Dust Types on the Eco-Physiological Response of Three Tree Species Seedlings: *Eucalyptus camaldulensis, Conocarpus erectus and Bombax ceiba*. **Atmosphere**. 2022; 13(7):1010
- 6. Ahmad, I., Jabeen, B., Nawaz, M.F., Asif, M., **Rashid, M.H.U***., Hussain, M., Farooq, T.H., Ahmed, S. and Rafiq, M., 2022. Influence of salinity on the morphological behavior and ionic response of different commercially important bamboo species. *Fresenius environmental bulletin*, 31(1), pp.668-676.
- 7. Ahmad, I., **Rashid, M. H. U***., Nawaz, S., Asif, M., Farooq, T. H., Shahbaz, Z., ... & Shaheen, M. (2022). Effect of different compost concentrations on the growth yield of Bombax ceiba (Simal). Nat. Resour. Hum. Health, 2, 222-227.
- 8. Nawaz MF, **Rashid M.H.U***, Arif M.Z, Sabir M.A, Farooq T.H, Gul S, Gautam N.P. (2021) Eco-physiological response of *Eucalyptus camaldulensis* to Dust and Lead Pollution. *New Zealand Journal of Forestry Science* (2021) 51:13.
- 9. Ahmad, I., **Rashid, M. H. U*.**, Nawaz, S., Asif, M., Farooq, T. H., Shahbaz, Z., Kashif, M., and Shaheen, M. (2022). Effect of different compost concentrations on the growth yield of Bombax Ceiba (Simal). Natural Resources for Human Health, 2(2), pp.222-227.
- 10. Saqib, H.M.U., Ahmad, I., **Rashid, M.H.U***., Farooq, T.H., Asif, M., Kashif, M., Iqbal, A, Nawaz, M.F. (2019) Effect of compost application on the growth of *Acacia Nilotica*.

Research Publications (Co-Author)

1. Gul, S., Nawaz, M. F., Yousaf, M. T. B., **Rashid, M. H. U.**, Adnan, M. Y., Tausif, S., ... & El-Keblawy, A. (2024). Brown macro-seaweeds derived agro-biostimulant for Zea mays farming in saline conditions: Growth enhancement and optimum biochemical and ion feedback. Biocatalysis and Agricultural Biotechnology, 103105.

- 2. Gilani, M. M., Tigabu, M., Farooq, T. H., **Rashid, M. H. U.**, Yasin, G., Zubair, M., ... & Ma, X. Q. (2023). Influence of differential Nitrogen Forms on seedling morphology of four widely grown species in Southern China. Applied Ecology & Environmental Research, 21(6).
- 3. Gautam, N. P., Bhusal, P., Raut, N. K., Chhetri, B. B. K., Raut, N., **Rashid, M. H. U.**, & Wu, P. (2023). Nepal's community forestry: critical reflection from the governance perspective. Scandinavian Journal of Forest Research, 1-13.
- 4. Khan, M., Ahmad, I., Atiq, M., Asif, M., **Rashid, M. H. U.**, Ahmad, S., ... & Adil, Z. (2023). Comparative assessment of various antibiotics for controlling bacterial blight in Eucalyptus camaldulensis. Plant Protection, 7(2), 311-319.
- 5. Farooq, T. H., Yasmeen, S., Shakoor, A., Nawaz, M. F., **Rashid, M. H. U.**, Ahmad, S., ... & Li, Q. (2023). Xylem anatomical responses of Larix Gmelinii and Pinus Sylvestris influenced by the climate of Daxing'an mountains in Northeastern China. Frontiers in Plant Science, 14, 1095888.
- 6. Sabir, M. A., Naseer, J., Hussain, S., Zulfiqar, U., **Rashid, M. H. U.**, Yousaf, M. T. B., ... & Gul, S. (2023). Exploring the Impact of Urban Vegetation on Particulate Matter Levels and Urban Environment Enhancement. Plant and Environment, 4(02), 35-44.
- 7. Farooq, T. H., Chen, X., Shakoor, A., **Rashid, M. H. U.**, Kumar, U., Alhomrani, M., ... & Yan, W. (2022). Unraveling the Importance of Forest Structure and Composition Driving Soil Microbial and Enzymatic Responses in the Subtropical Forest Soils. *Forests*, 13(10), 1535.
- 8. Farooq, T. H., Bukhari, M.A., Irfan, M.S., Rafay, M., Shakoor, A., **Rashid, M.H.U.**, Lin, Y., Saqib, M., Malik, Z., & Khurshid, N. (**2022**). Effect of Exogenous Application of Nicotinic Acid on Morpho-Physiological Characteristics of Hordeum vulgare L. under Water Stress. *Plants*. 2022, 11, 2443.
- 9. Asad, M., Khan, R. R., Aljuboory, A. B., **Rashid, M. H. U.**, Kumar, U., Haq, I. U., ... & Alharbi, K. (2023). Toxic and Antifeedant Effects of Different Pesticidal Plant Extracts against Beet Armyworm (*Spodoptera exigua*). Phyton (0031-9457), 92(4).
- 10. Farooq, T. H., Shakoor, A., **Rashid, M. H.** U., Zhang, S., Wu, P., & Yan, W. (2021). Annual Growth Progression, Nutrient Transformation, and Carbon Storage in Tissues of *Cunninghamia lanceolata* Monoculture in Relation to Soil Quality Indicators Influenced by Intraspecific Competition Intensity. *Journal of Soil Science and Plant Nutrition*, 1-13.
- 11. Farooq, T. H., Xincheng, X., Shakoor, A., **Rashid, M. H. U.,** Bashir, M. F., Nawaz, M. F., Kumar, U., Shahzad, S.M. and Yan, W. (**2021**). Spatial distribution of carbon dynamics and nutrient enrichment capacity in different layers and tree tissues of *Castanopsis eyeri* natural forest ecosystem. Environmental Science and Pollution Research, 1-13.
- 12. Farooq, T. H., Shakoor, A., Wu, X., Li, Y., **Rashid M. H. U.**, Zhang, X., ... & Yan, W. (**2021**). Perspectives of plantation forests in the sustainable forest development of China. *iForest-Biogeosciences and Forestry*, 14(2), 166.
- 13. Farooq, T.H., Chen, X., Shakoor, A., Li, Y., Wang, J., **Rashid, M.H.U.,** Kumar, U. and Yan, W., **2021**. Unraveling the Influence of Land-Use Change on δ13C, δ15N, and Soil Nutritional Status in Coniferous, Broadleaved, and Mixed Forests in Southern China: A Field Investigation. *Plants*, 10(8), p.1499.

- 14. Gilani, M. M., Tigabu, M., Liu, B., Farooq, T. H., Rashid, M. H. U., Ramzan, M., & Ma, X. (2021). Seed germination and seedling emergence of four tree species of southern China in response to acid rain. *Journal of Forestry Research*, 32(2), 471-481.
- 15. Farooq, T. H., Kumar, U., Mo, J., Shakoor, A., Wang, J., **Rashid, M. H. U.**, ... & Yan, W. (2021). Intercropping of Peanut–Tea Enhances Soil Enzymatic Activity and Soil Nutrient Status at Different Soil Profiles in Subtropical Southern China. *Plants*, 10(5), 881.
- 16. Farooq, A., Kumar, U., Uddin, J.B.G., **Rashid, M.H.U.**, Gilani, M.M., Farooq, T.H., Shakoor, A., & Ahmad, M. Climatological and social fallacies about COVID-19 pandemic. Environmental Sustainability (2021).
- 17. Farooq, T. H., Yan, W., Chen, X., Shakoor, A., **Rashid M. H. U.**, Gilani, M. M., ... & Wu, P. (2020). Dynamics of canopy development of *Cunninghamia lanceolata* mid-age plantation in relation to foliar nitrogen and soil quality influenced by stand density. *Global Ecology and Conservation*, 24, e01209.
- 18. Farooq TH, Ma X, **Rashid M.H.U.**, Wu W, Xu J, Tarin MWK, He Z, Wu P. (**2019**) Impact of stand density on soil quality in Chinese fir (*Cunninghamia lanceolata*) monoculture. *Applied Ecology and Environmental Research* 17(2):3553-3566.
- 19. Farooq TH, Tigabu M, **Rashid M.H.U.**, Gilani MM, Wu P. (**2019**) Chinese fir (*Cunninghamia lanceolata*) a green gold of china with continues decline in its productivity over the successive rotations: A review. *Applied Ecology and Environmental Research*.
- 20. Farooq TH, Wu W, Tigabu M, Ma X, Rashid M.H.U., Gilani MM, He Z, Wu P. (2019) Growth, biomass production and root development of Chinese fir in relation to initial planting density. *Forests* 10(3):236.
- 21. Xu JJ, Li Q, Wu WJ, **Rashid Muhammad Haroon U**, Ma XQ, Wu P F. Effects of vertical phosphorus competition on root growth and biomass distribution of Chinese fir seedlings. *Acta Ecologica Sinica*, **2019**, 39(6): 2071- 2081 (In Chinese with English abstract).
- 22. Farooq TH, Gautam NP, **Rashid M.H.U.**, Gilani MM, Nemin W, Nawaz MF, Islam W, Zainab M, Wu P. (**2018**) Contributions of Agroforestry on Socio-economic Conditions of Farmers in Central Punjab, Pakistan—A Case Study. Revista Cercetari Agronomice 1;51(2):91-101.
- 23. Yousaf MS, Farooq TH, Ahmad I, Gilani MM, **Rashid M.H.U.**, Gautam NP, Islam W, Asif M, Wu P. (**2018**) Effect of Drought Stress on the Growth and Morphological Traits of *Eucalyptus camaldulensis* and *Eucalyptus citriodora*. PSM Biological Research. 24;3(3):85-91.

Book Chapters Published

- 1. Sohail, M., **Rashid, H. U.**, Khursheed, M. M., Riaz, S., Sahar, R., Ahmad, I., Asif, M. (2024). Soil Restoration and Management for Soil Sustainability Goals. Soil Health Management For Sustainable Development Goals: Volume 01: Soil, Plant and Environmental Nexus. ISBN: 9789358872194
- 2. Sohail, M., Riaz, S., **Rashid, M. H.**, Khan, H., Ahmad, I., Asif, M., & Sahar, R. (2024). Forestry Holistic Education: A Comparative Study of Worldwide Forestry Education and Its Beneficiaries. In F. Al Husseiny & A. Munna (Eds.), Revitalizing the Learning Ecosystem for

- Modern Students (pp. 168-190). IGI Global. https://doi.org/10.4018/979-8-3693-4103-2.ch009
- 3. Riaz, S., Sohail, M., **Rashid, H.** U., Nawaz, F., Asif, V., Majeed, Y., Sahar, R., Khan, A., Farooqi, Z. U., Ma'arij, A., Ilić, P., & Jamal, M. U. (2024). Global Insight Into National Climate Mitigation Priorities Within the Framework of Climate Education. In F. Al Husseiny & A. Munna (Eds.), Revitalizing the Learning Ecosystem for Modern Students (pp. 87-115). IGI Global. https://doi.org/10.4018/979-8-3693-4103-2.ch005
- 4. Ahmad, I., Asif, M., **Rashid, H. U.,** Ahmed, S., Ahmad, S., Jabbar, A., ... & Adil, Z. (2023). Forestry a Way Forward for Disaster Risk Reduction in Agriculture. In Disaster Risk Reduction in Agriculture (pp. 335-360). Singapore: Springer Nature Singapore.
- 5. El-Juhany, L., Ahmad, I., Baig, M. B., Nawaz, M. F., Asif, M., **Rashid, M. H. U.**, & Shaheen, M. (2022). Fostering the Sustainable Forest Management in Saudi Arabia from Resilience and Mitigation Perspectives. In The Food Security, Biodiversity, and Climate Nexus (pp. 287-308). Cham: Springer International Publishing.

Fellowships and Post-Docs

2022-2023 *Managing Water for Climate Smart Agriculture South Asia*. The U.S. Department of Agriculture. Foreign Agriculture Service. Department of Forestry, Michigan State University. Visiting International Professional Program at United States of America.

Conferences/Seminars Activities

2023-2024

<u>comercinces, se</u>	
2024-2025	Organized awareness walk on "National Tree Plantation Day" at UAF, 19 th August 2024.
2024-2025	Organized Northeast Forestry University NEFU-Pakistan Alumni Meeting on 23 rd May 2024 & New Senate Hall 24 th May 2024 to conduct an academic session.
2024-2025	Organized Field Seminar for Celebrating International Day of Forests at PAROKA-II Farm on 21st March 2024.
2024-2025	Established an agroforestry demonstration plot along with a field seminar at "Kalowai" Tehsil & District, Mandi Bahaudin under the research project entitled "Integration Climate Change Adoptation and Mitigation in Agriculture System through Agroforestry for Ecosystem Conservation" on 8 th March 2024.
2023-2024	Attended World Food Prize Foundation, Norman E. Borlaug International Dialogue, Des Moines, IOWA, USA, 24-26 October 2023.

Development Goals on 8th May 2023.

Organized a webinar on "Modern Aspects of Afforestation and Sustainable

2023-2024 Organized a Seminar for the Project Demonstration and Inauguration of Artificial Rainfall System at the Department of Forestry Nursery/Experimental Area on 19th January 2023. 2022-2023 Attended Second China-Pakistan Tropical arid Non-wood Forest sciences and Technology exchange event and academic exchange meeting on efficient soil and water conservation plant China Hunan Province, Central South University of Forestry and Technology, Pakistan Baluchistan Gwadar Port, 27-29 November 2022. 2022-2023 Organized One Day Field Seminar on the eve of International Day for Forests, March 21, 2022, Department of Forestry and Range Management, University of Agriculture, Faisalabad. 2021-2022 Attended First China-Pakistan Tropical arid Non-Wood Forest Sciences and Technology Exchange Event at Indus University, Pakistan. - Non-Wood Forest Sciences and Technology Exchange Activity China Hunan Province, Central South University of Forestry and Technology, Pakistan Baluchistan Gwadar Port, 26-27 October 2021. Attended 7th China Forestry Academic Conference "Innovation Leads to High 2019-2020 Quality Development of Forestry and Grassland", Nanjing Forestry University, China. Attended 3rd International Symposium on Innovation in Plant and Food Science. 2018-2019 Fujian Agriculture and Forestry University, China. 2016-2017 Attended International Conference on Forestry and Environment: Challenges and Prospects, November 21-22, 2016.

Training and Workshops

2024-2025	Three Day Capacity Building Workshop, regarding Research Management, Commercialization, Patents Registration, IPO Compliance, Consultancies,
	Rankings, Research Incentives, and Promotion of an Entrepreneurial Ecosystem at campus held on July, 30-31 and August 1st, 2024, at New Senate Hall, arranged by ORIC.
2024-2025	One Day International online workshop on Article Publication in Reputable Journal by Maryam Abacha American University of Nigeria on Thursday, April 4 th , 2024.
2022-2023	The Training in GIS Basics in Forestry, at Beijing Forestry University China, on 13-15 June 2023.
2022-2023	One day Training/Orientation session on Green Youth Movement (GYM), Prime Minister's Youth Program, on June 10, 2022, at Higher Education Commission

Regional Center, Lahore.

Induction Training Workshop for Newly Appointed Faculty, Directorate of 2022-2023 Academics & Teaching Resource Centre, University of Agriculture, Faisalabad.

Presenters in Conferences

2025-2026	International Conference on "Climate Change Mitigation and Environmental Amelioration through Plants and other Sustainable Practices", 11-13 February, 2025.
2022-2023	7th International conference on Climate Smart Agriculture: Innovations and Adaptations, 15 to 17th of June 2022 at University of Poonch Rawalakot, Azad Jammu & Kashmir, Pakistan.
2019-2020	4 th National Symposium on Chinese fir and the working conference of Chinese fir industry promoting poverty alleviation, Liping Guizhou, China.
2017-2018	1 st International Conference on Climate Change and Biodiversity IC ³ B, Cholistan Institute of Desert Studies (CIDS), Pakistan.
2015-2016	7 th Global Initiatives Symposium GIS, National Taiwan University, Taiwan.

Academic/Administrative Duties	
2024 - 2025	Focal Person
	Admission to Undergraduate Degree Programs (BS Forestry) for the session 2024-
	2025.
2024 - 2025	Central Scrutiny Admission Committee
	Admission at Undergraduate level during the academic session 2024-2025.
2024 - 2025	Academic Co-Advisor
	Faculty of Agriculture during the academic session 2024-2025.
2023 - Continue	Editor
	Plant Health (Journal). ISSN: 2305-6835.
2023 - 2024	Academic Co-Advisor
	Faculty of Agriculture during the academic session 2023-2024.
2022 - 2022	Guest Editor
	Sustainability (MDPI). ISSN: 2071-1050.
2022 - Continue	Focal Person, HEC (PSDP-Funded)
	Establishment of Green Youth Movement (GYM) Club at University of
	Agriculture, Faisalabad.

2022 - Continue Focal Person

Kamyab Jawan Innovation League (KJIL) Club at the University of Agriculture, Faisalabad.

2022 - Continue In-Charge

Departmental Scientific Laboratory, Department of Forestry and Range Management, UAF.

2022 - Continue In-Charge

Pakistan Society of Foresters, Department of Forestry and Range Management, UAF.

2022 - Continue Committee Member

(1) Course Reviewing and Course File Committee; (2) Stakeholder/Industrial Linkages Committee. Departmental committees regarding Outcome Based Education (OBE).

2022 - Continue Co-Incharge

Virsa Music Society, Office of The Senior Tutor, University of Agriculture Faisalabad.

References:

Dr. Pengfei Wu (Professor)

Supervisor of PhD

College of Forestry, Fujian Agriculture and Forestry University, China.

E-mail: fjwupengfei@126.com

Dr. Mulualem Tigabu (Assoc. Professor)

Co-Supervisor of PhD

College of Forestry, Fujian Agriculture and Forestry University, China.

E-mail: mulualem.tigabu@slu.se

Dr. Irfan Ahmad (Assoc. Professor)

Chairman

Department of Forestry & Range Management University of Agriculture Faisalabad Pakistan

Email: irfanahmad@uaf.edu.pk