

Curriculum Vitae



Dr. Syed Aziz Ur Rehman

Personnel Info

Date of Birth: 12th August, 1988
Nationality: Pakistani
Permanent Address: Post Office Hissartang, Tehsil Jehangira, District Nowshera, Khyber Pakhtunkhwa, Pakistan.
Email Address: syedaziz88@gmail.com
Passport No: FK9157122
Contact (Cell): +92-333-5568438
Skype ID: aziz.rehman45

Education

- 1. Degree:** **Doctor of Philosophy in Environmental Science**
Institute: School of Environment, Beijing Normal University, P. R. China
Session: 2015-2018
Thesis Title: Sustainable Energy Resource Management and Planning in Pakistan: Developing a National-scale Bottom-up Energy Optimization model (Pak-TIMES)
- 2. Degree:** **Master of Soil Science**
Institute: Department of Soil Science and Land Resources, Bogor Agricultural University, West Java, Indonesia
Session: January 2013 – January 2015
Thesis Title: Estimating changes in above-ground biomass in the Peatlands of Riau and West Kalimantan, Indonesia
- 3. Degree:** **Bachelor of Environmental Sciences**
Institute: Department of Environmental Sciences, University of Peshawar, Pakistan
Session: 2006 – 2010
Thesis Title: Livestock grazing and Pastures in Nomadic Perspective: A case study of Narran Upland Pastures of Pakistan
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Professional Experience

Organization **COMSATS University Islamabad, Pakistan**
Organization Type Public Sector University
Department Center for Climate Research and Development (CCRD)
Designation Assistant Professor
Role and Responsibilities Conducting research pertaining to climate science using applied environmental sciences techniques such as ecological modelling mainly focusing on climate modelling and its applications. I am also actively involved in the climate outreach programs and events that are arranged by the center from time to time.
Tenure From November 5th 2018 to date

Organization	University of Swat
Organization Type	Public Sector University
Web address	www.uswat.edu.pk
Designation	Lecturer (BPS-18)
Location	Saidu Sharif, Swat, Khyber Pakhtoonkhwa, Pakistan
Tenure	4 th October, 2011 to 15 th November, 2012
Role and Responsibilities	Teaching various courses to Undergraduate students of Environmental Sciences e.g. Natural Resource Management, Environmental Chemistry, Physical Geology and Physical Geography; my extra job responsibilities included to be being incharge of the department and semester coordinator for undergraduate program.
Organization	Foundation for Research and Socio-ecological Harmony
Organization Type	Non-Profit (Research)
Web address	www.fresh.org.pk
Designation	Research Associate
Location	House No 41, Street 32, Sector D-17/2, Islamabad, Pakistan
Tenure	3 rd October 2010 to 3 rd October, 2011
Role and Responsibilities	The assignment was to work in Landless Pastoralist Research Project in a research team of three senior scientists with 2 PhD and 3 MPhil students. My responsibilities included developing proposals for own research within the overall research objectives of the project, conduct individual research project, drafting research work for presentation and publication; communicating material of a specialist or highly technical nature, data entry from questionnaire surveys, data Analysis, and contribution to planning of joint research project led by principal investigator.
Organization	National Center of Excellence in Geology, University of Peshawar
Title	Intern
Role	Laboratory Demonstrator/Assistant
Tenure	Jun-2009 to Aug-2009
Role and Responsibilities	My duties included assistance in overall lab analysis, developing protocols and demonstrating methods and techniques to undergraduate students.

Research Projects Experience

1. Title	Sustainable Energy Resource Management and Planning in Pakistan: Developing a national-scale bottom-up energy optimization model (Pak-TIMES)
Time and Place	Beijing Normal University, Beijing, P.R. China (2015-2018)
Status	Completed
2. Title	Historical Assessment of Oil Palm plantation expansion pursuing Peat Swamp Forests conversion in Riau and West Kalimantan
Status	Completed
Time and Place	Riau and West Kalimantan Indonesia (2013-14)

<i>Supported by</i>	Department of Land Resources and Soil Sciences, Bogor Agriculture University and Indonesian Palm Oil Association.
3. Title	Renouncing steep slopes cropping for grazing: A systematic rangeland management adjusted for climate change mitigation in Pakistan
<i>Status</i>	Completed
<i>Time and Place</i>	Narran Upland Pastures, Hindukash-Himalayan range of Pakistan 2009 to 2011
<i>Supported by</i>	Center for Development and Environment (CDE), University of Bern, Switzerland, Swizz Development Corporation (SDC), Swizz National Science foundation, National Center for Competence in Research (North-South NCCR)
<i>Available at</i>	www.cde.unibe.ch/Pages/Publication/2320/Workshop-proceedings-Landless-mobile-pastoralists.aspx
4. Title	Livestock grazing and Pastures in Nomadic Perspective: A case study of Narran Upland Pastures of Pakistan.
<i>Status</i>	Completed
<i>Time and Place</i>	Narran Upland Pastures, Hindukash-Himalayan range of Pakistan 2010
<i>Supported By</i>	Foundation for Research and Socio-ecological Harmony, Islamabad Pakistan Department of Environmental Sciences, University of Peshawar, Pakistan
<i>Available in</i>	Department of Environmental Sciences, University of Peshawar, Pakistan Institute of Geography, University of Bern, Switzerland
5. Title	Environmental Impact Assessment of mineral mining and processing: An exploratory study of Mineral Sector of Mohmand Tribal Agency, Pakistan
<i>Status</i>	Completed
<i>Time and Place</i>	Mohmand Agency, Federally Administered Tribal Area of Pakistan, 2011
<i>Supported by</i>	Inter-cooperation, Pakistan
<i>Submitted to</i>	Inter-cooperation Peshawar office, Pakistan

Skills Acquired

<i>During Bachelors</i>	<ul style="list-style-type: none"> ✓ MS Word, MS PowerPoint, MS Excel, Graphpad prism, EPI info. ✓ Environmental Impact Assessment surveys. ✓ Biochemical analysis of Rocks, Soil, biomass and water. ✓ Working command on Atomic Absorption spectrophotometer, Element Analyzer, UV spectrophotometer, heavy metals extraction and detection.
<i>During Masters</i>	<ul style="list-style-type: none"> ✓ ARC Gis 9.3, LANDSAT imageries analysis, ERDAS Imagine. ✓ Detail soil analysis, Biochemical parametrization of soil. ✓ Soil and Land Evaluation, USDA and FAO Methods

During PhD

- ✓ Ecological Modelling (Environmental Accounting, Simulation and Optimization).
- ✓ STELLA (Dynamic Modelling and Simulation platform)
- ✓ EVIEWS, Minitab, SAS, ARC, ORIGIN
- ✓ Energy Modelling
- ✓ ANSWER-TIMES (The integrated MARKAL EFOM system)
- ✓ LEAP (Long Range Energy Alternative Planning tool)
- ✓ HOMER (Hybrid Optimization of Multiple Energy Resources)
- ✓ GAINS modelling (The GHG and Air Pollution Interactions and Synergies)

Publications

1. **Rehman, S.**, Cai, Y., Mirjat, N., Walasai, G., & Nafees, M., 2019. Energy-Environment-Economy Nexus in Pakistan: Lessons learnt from a PAK-TIMES Model. *Energy Policy*, 126, 200-211.
2. Ali, S., **Rehman, S.**, Shah, IA., Farid, MU, Alicia, KA., Huang, H., (2018). Efficient removal of zinc from water and wastewater effluents by hydroxylated and carboxylated carbon nanotube membranes: Behaviors and mechanisms of dynamic filtration, *Journal of Hazardous Materials*, 365, 64-73, <https://doi.org/10.1016/j.jhazmat.2018.10.089>.
3. Ali, S., **Rehman, S.**, Luan, HY., Farid, MU., & Huang, H. (2018). Challenges and opportunities in functional carbon nanotubes for membrane-based water treatment and desalination. *Science of the Total Environment*, 646, 1126-1139.
4. **Rehman, S.**, Cai, Y., Fazal, R., Das Walasai, G., & Mirjat, N. (2017). An Integrated Modeling Approach for Forecasting Long-Term Energy Demand in Pakistan. *Energies*, 10(11), 1868. doi:10.3390/en10111868
5. **Rehman, S.**, Cai, Y., Mirjat, N., Walasai, G., Shah, I., & Ali, S. (2017). The Future of Sustainable Energy Production in Pakistan: A System Dynamics-Based Approach for Estimating Hubbert Peaks. *Energies*, 10(11), 1858. doi:10.3390/en10111858
6. **Rehman, S.**, Cai, Y., Nafees, M., Das Walasai, G., Mirjat, N., & Rashid, W. (2017). Overcoming Electricity Crisis in Pakistan: An Overview of the Renewable Energy Status and Development in Pakistan. *Journal of Environmental Accounting and Management*, 5(4), 350-376. doi:DOI:10.5890/JEAM.2017.12.007
7. **Rehman, S.**, Cai, Y., Mirjat, N., Walasai, G., & Nafees, M., 2018. Cleaner Energy Production in Pakistan: Lessons learnt from PAK-TIMES Model. (*Renewable Energy Journal*)
8. **Rehman, S. A. U.**, Sabiham S., Sudadi, U. & Anwar, S. (2015) Land Use Changes and Above-Ground Biomass Estimation in Peatlands of Riau and West Kalimantan, Indonesia. *J. ISSAAS*, Vol. 21, No. 1: 123-135
9. **Rehman, S. A. U.**, Sabiham, S, Sudadi, U & Anwar S. (2014). Impacts of Oil Palm Plantations on Climate Change: A Review of Peat Swamp Forests' Conversion in Indonesia. *International Journal of Plant and Soil Sciences*, 1(4): 1-17
10. **Rehman, S. A. U.**, Sabiham, S, Sudadi, U & Anwar S. (2014). Historical Assessment of Forestland Conversion to Oil Palm Plantation in Riau and West Kalimantan, Indonesia, *International Journal of Plant and Soil Sciences*, Vol.: 6(1), 34-49
11. **Rehman, S.**, Cai, Y., & Nafees, M., 2017. Historical assessment of primary energy supply and demand in Pakistan: Evaluating future energy security in light of international energy trade. *Sustainable and Renewable Energy Reviews* (Under Review)

Conference Papers published

1. Rehman. Syed Aziz Ur. 2012; From REDD+ Principles to Pro-Poor Alpine Pasture Management in Pakistan In Syed Iqmail Shah, Inam -ur-Rahim, Henri Rueff and Daniel Maselli (Eds) *Workshop Proceedings*; Landless Mobile Pastoralists securing there role as custodians of Northern Pakistan Mountains, Islamabad, 24–26 April 2012, Centre for Development and Environment pp.12
2. Henri RUEFF, Syed-ur REHMAN, Inam-ur RAHIM, Daniel Maselli MASELLI Sustainable land management and carbon finance: a case study on landless mobile pastoralists in the Hindu Kush Himalaya Mountains of northern Pakistan; <https://boris.unibe.ch/17626/>

References

1. **Dr. Yanpeng Cai**

Professor

School of Environment, Beijing Normal University, Beijing, China

Contact (Phone): +86-18610992677; Email: yanpeng.cai@bnu.edu.cn

2. **Dr. Muhammad Nafees**

Professor

Department of Environmental Sciences, University of Peshawar, Pakistan

Contact (Phone): +92-345-9117897; Email: nafees36@yahoo.com