

Muhammad Abid, Ph.D.

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Centre for Climate Research & Development, COMSATS University, Park road, Islamabad, Pakistan

EDUCATION

- **Ph.D. in Human Geography**, Universität Hamburg, Germany 2013-2017
Dissertation: Climate Change impacts and adaptation in the agricultural sector of Pakistan- Socioeconomic and geographical dimensions (*Grade: magna cum laude*)
- **Masters (Honours) in Agricultural Economics**, University of Agriculture, Faisalabad, Pakistan, CGPA: 3.99/4.00 (stood second) 2008-2010
Thesis on Productivity and Resource Use Efficiency of Bt (*Bacillus thuringiensis*) Cotton Farmers: A Case Study of Punjab Province
- **BSc (Honours) in Agricultural and Resource Economics**, University of Agriculture, Faisalabad, Pakistan, CGPA: 3.92/4.00 (Silver medal) 2004-2010

RESEARCH EXPERIENCE

Centre for Climate Research & Development, CU Islamabad

03/2017-to date

Assistant Professor

- Research on human-environment interactions and climate change, food and water nexus
- Project management and coordination.
- Proposal writing

Current Projects

- Public perception and valuation of climate-related risks and willingness-to-pay for policy interventions in metropolitan cities of Punjab, Pakistan (2017-2018)- funded by the Higher Education Commission, Pakistan (Principal Investigator)
- A Study on the Social Impact-Response Mechanism of Flood Hazards in Northern Pakistan (2016-2018)- funded by the Institute of Mountain Hazards and Environment, Chinese Academy of Sciences, Chengdu, China (Principal Investigator).
- Sustainable food systems under climate change in South Asia (SUSFOOD) (2017-2019)- funded by German Federal Ministry of Education and Research (BMBF) and involves four institutes from South Asia (Pakistan, India, Bhutan, Nepal) and two from Europe (Germany, Austria) (Co-Principal Investigator)
- Mitigation Strategies for Enhanced Soybean Production under Changing Climate Scenarios in the Pothwar and Khyber Pakhtunkhwa (2018-2020)- funded by Ministry of National food security and Research, Govt. of Pakistan under Agricultural Linkages Program (ALP) (Co-Principal Investigator)

Student supervision

- A second advisor for Master thesis on “Climate change impacts, risk perceptions and coping strategies in metropolitan cities of Punjab, Pakistan,” Ayesha Mehtab, COMSATS University, Islamabad (2017-ongoing)

- Third advisor for a Ph.D. thesis on “Developing Strategies to Predict Climate Change Impacts on Medicinal Plants, Their Vulnerability and Adaptation,” Saira Karimi, Department of Biosciences, COMSATS University, Islamabad (2017-ongoing)

Universität Hamburg, Germany

2013-2017

Doctoral researcher

- Associated with research group Climate Change and Security and was the part of the Cluster of Excellence “Integrated Climate System Analysis and Prediction” (CliSAP)
- Conducted research on social dimensions of climate change and its interaction with agriculture and food systems in Pakistan.
- Project management and coordination, proposal writing

International Water Management Institute (IWMI), Lahore

2011-2012

Researcher- Agricultural Economics

- Project: Revitalizing Irrigation in Pakistan- funded by Dutch embassy in Islamabad, contributed to the component-3 (groundwater) and component-4 (farmer support units) of the project
- Being agricultural Economist, the key responsibilities include handing household surveys including survey design, sampling and questionnaire construction and testing, training enumerators, field supervision, development of research instruments and data analysis.
- Organised and conducted two large field surveys at field sites in Punjab and KP provinces
- Project management and coordination
- Data cleaning, data analysis, and report writing.

Japan International Cooperation Agency (JICA), Lahore, Pakistan

2010-2012

Coordinator-Reforms

- Project: Strengthening Irrigated Agriculture through Participatory Irrigation Management in the Punjab province
- Conducting case studies to assess the effectiveness of newly established Farmers Organizations (FOs) under irrigation institutional reforms in resolving water disputes among farmers in Punjab, Pakistan
- Monitoring and evaluation of FO training conducted by Punjab Irrigation and Drainage Authority (PIDA) through self-observation and participants’ survey
- Assisting JICA team in conducting stakeholder meetings, workshops, and dialogues

Asad Ahmad Bukhari (Pvt.) limited, Islamabad, Pakistan

02/2010- 07/2010

Consultant (Team Lead- Socio-economic)

- Project: Impact evaluation study of the National Program for Improvement of Watercourses (NPIW) in Pakistan
- Assisted PI of the project in survey design, pre-testing, and finalization of survey instruments for the impact assessment study
- Supervised the interdisciplinary team of twelve researchers to conduct 2000 farmer interviews and 300 focused group discussions across 35 districts of Punjab province, Pakistan
- Project management and field coordination

Dept. Env. & Res. Economics, University of Agriculture, Faisalabad, Pakistan

2009-2010

Research Assistant

- Project: Economics of adopting Bt cotton: Evidence from Pakistani Punjab- funded by South Asian Network for Development and Environmental Economics (SANDEE), Nepal at Department of Environmental and Resource Economics
- Developing study design, reviewing the literature and conducting the cost-benefit analysis and resource use efficiency of adopters and non-adopters of Bt-cotton
- Training, supervising and conducting field research to conduct a panel survey of 300 cotton farmers for consecutive two years (2008-2010) in three cotton districts of Punjab, Pakistan.
- Assisting PI in data analysis and report writing

Sustainable Development Policy Institute (SDPI), Islamabad Pakistan

06/2008-08/2008

Field researcher

- Project: Environmental Fiscal Reforms in district Abbottabad, KP province- funded by International Union for Conservation of Nature (IUCN)
- Conducted more than 300 interviews with stakeholder related to mining and quarrying sector to assess social, environmental and health impacts of mining and quarrying activities at the local level
- Field coordination and data cleaning

Pakistan Institute of Development Economics, Islamabad Pakistan

03/2008-06/2008

Research Internee

- Data management of different international projects and conducting descriptive statistical analysis for various projects
- Conducted primary research on the adoption and willingness-to-pay for safe drinking water in Rawalpindi district, Punjab Pakistan
- Participated in various training programs related to communication skills, gender analysis, and project planning

ACHIEVEMENTS

- Won the silver medal in BSc (Hons.) degree at University of Agriculture, Faisalabad-Pakistan
- Stood second in MSc (Hons) degree at University of Agriculture, Faisalabad-Pakistan
- Four-time winner of University merit scholarship based on academic achievements
- Won four-year Ph.D. scholarship for Germany from Higher Education Commission, Pakistan
- Won a field research grant to conduct Ph.D. field research in Pakistan
- Received highest German grade “*Sehr gut*” in the Ph.D. dissertation (both oral and written)
- Received eight conference grants to participate in eight international conferences in UK, China, Russia, France, Pakistan, Germany, Austria

PROFESSIONAL SKILLS

- Proficient in statistical analysis and software (R, Stata, SPSS, Eviews, Netdraw)
- Proficient user of General Algebraic Modelling System (GAMs)
- Basic use of Geographic Information Systems and related software (ArcGIS)
- Basic knowledge of Agent-Based Modelling
- Proficient in MS Office (MS Word, MS Excel, MS PowerPoint)

- Project management, report writing, data analysis, feasibility studies
- English (Business fluent), intermediate German, Urdu, and Punjabi (Mother Tongue)

PEER-REVIEWED PUBLICATIONS

1. Elahi, E., **Abid, M.**, Zhang, L., Haq S.U., Sahito, G.M.H. (2018). Agricultural advisory and financial services; farm level access, outreach and impact in a mixed cropping district of Punjab, Pakistan, *Land Use Policy*, 71C: 249-260.
2. Van, Elahi, E., Zhang, L., **Abid, M.** (2018) Gender differences in formal credit approaches: evidence from rural households in Vietnam, *Journal of the Asia Pacific Economy*, 32(1): 131-138.
3. Shah, A.A., Ye, J., **Abid, M.**, Khan, J. and Amir, S.M., (2018). Flood hazards: household vulnerability and resilience in disaster-prone districts of Khyber Pakhtunkhwa province, Pakistan. *Natural Hazards*, pp.1-19.
4. Iqbal, M.A., Ping, Q., **Abid, M.**, Abbas, A., Bashir, M.K. Ullah, R. (2018: accepted). Extent and Determinants of Rural Poverty in Pakistan: Role of Adopting Risk Management Strategies, *Journal of Plant and Animal Sciences*.
5. **Abid, M.**, Ngaruiya, G., et al., (2017). The role of social networks in agricultural adaptation to climate change: Implications for sustainable agriculture in Pakistan, *Climate*, 5(4), 85.
6. Elahi, E., **Abid, M.**, Zhang, L., & Alugongo, G.M. (2017). The usage of wastewater for animals' production and its socioeconomic and welfare implication. *Environmental Science and Pollution Research*, 24(21):17255–17266.
7. Elahi, E., Zhang, L., **Abid, M.**, et al., (2017). Direct and indirect effects of wastewater use and herd environment on the occurrence of animal diseases and animal health in Pakistan. *Environmental Science and Pollution Research*, 1-14.
8. Shah, A.A., Jingzhing, Y., **Abid, M.**, Ullah, R. (2017). Flood risk mitigation strategies at household level and its determinants: a case of Khyber Pakhtunkhwa (KP) province, Pakistan, *Natural Hazards*, 88(1):415–430.
9. Ahmed, U.I., Bashir, M.K., Ying, L., **Abid, M.**, Zulfiqar, F. (2017). Status and determinants of small farming households' food security and role of market access in enhancing food security in rural Pakistan, *PLOS ONE*, 12 (10), 1-15.
10. **Abid, M.**, Schneider, U.A., Scheffran, J. (2016). Adaptation to climate change and its impacts on food productivity and crop income: Perspectives of farmers in rural Pakistan, *Journal of Rural Studies*, 47A, 254-266.
11. **Abid, M.**, Schilling, J., Scheffran, J., Zulfiqar, F. (2016). Climate Change Vulnerability, Adaptation and Risk Perceptions among Farm Households in Punjab, Pakistan, *Science of the Total Environment*, 546, 447-460.
12. **Abid, M.**, Scheffran, J., Schneider, U. A. & Ashfaq, M. (2015). Farmers' perceptions of and adaptation strategies to climate change and their determinants; the case of Punjab province, Pakistan. *Earth System Dynamics*, 6(1), 225-243.

13. Iqbal, M.A., Ping, Q., **Abid, M.**, Ahmed, U.I. Nazir, A. (2016). Assessing risk perceptions and attitude among cotton farmers: a case of Punjab province, Pakistan, *International Journal of Disaster Risk Reduction*, 16, 68-74.
14. Zulfiqar, Ullah R., **Abid, M.**, Hussain, A. (2016). Cotton production under risk: A simultaneous adoption of risk coping tools, *Natural Hazards*, 84(2): 959–974.
15. Ping, Q., Iqbal, M.A., **Abid, M.**, Ahmed, U.I., Nazir, A. & Rehman, A. (2016). Adoption of off-farm diversification income sources in managing agricultural risks among cotton farmers in Punjab Pakistan, *Journal of Applied Environmental and Biological Sciences*, 6(8), 47-53.
16. Naseer, A., Ashfaq, M., **Abid, M.**, Razzaq, A. & Hassan, S. (2016). Current status and key trends in agricultural land holding and distribution in Punjab, Pakistan: Implications for Food Security, *Journal of Agricultural Studies*, 4(4), 14-27.
17. Ahmed U.I., Ying, L., Bashir, M.K., **Abid, M.**, Elahi, E. (2016). Access to output market by small farmers: the case of Punjab, Pakistan, *Journal of Animal and Plant Sciences*, 26(3): 2016.
18. Usman M, Ali A, Hassan S. & **Abid M** (2015). An efficiency analysis of tuberose cut-flower: A case study, *Journal of Animal & Plant Sciences* 25, 1699-1706.
19. Elahi, E., Zhang, L., **Abid, M.**, Altangerel, O., Bakhsh, K., Uyanga, B., Ahmed, U. I. & Xinru, H. (2015). Impact of balance use of fertilizers on wheat efficiency in cotton-wheat cropping system of Pakistan, *Int. J. Agric. Innov. Res.* 3, 1470–1474.
20. Usman, M., Ashfaq, M., Taj, S. & **Abid, M.** (2014). An economic analysis of cut-rose flower in Punjab, Pakistan. *Journal of Animal and Plant Sciences*, 24(2), 651-655.
21. Ashfaq, M., **Abid, M.**, Bakhsh, K. & Fatima, N. (2012). Analysis of resource use efficiencies and return to the scale of medium-sized Bt cotton farmers in Punjab, Pakistan, *S. J. Agric*, 28(3), 493-498.
22. Fatima, S., Azeem, M. M., Elahi, E. **Abid, M.** (2012). Comparative analysis of foreign capital inflows and domestic resources in the economic growth of Pakistan, *J. Agric. & Soc. Sci.*, 8(1).
23. Sheikh, A. T., Elahi, E., **Abid, M.**, Fatima, S., Fatima, N. (2012). Effect of sewage water on the cauliflower productivity in Punjab, Pakistan, *J. Agric. & Soc. Sci.*, 8(1), 37-40.
24. **Abid, M.**, Ashfaq, M., Hassan, S. & Fatima, N. (2011). A resource use efficiency analysis of small Bt cotton farmers in Punjab, Pakistan, *Pak. J. Agric. Sci*, 48(1), 65-71.
25. **Abid, M.**, Ashfaq, M., Khalid, I. & Ishaq, U. (2011), An economic evaluation of impact of soil quality on Bt (*Bacillus thuringiensis*) cotton productivity. *Soil and Environment*, 30(1), 78-81.

PUBLICATIONS (UNDER REVIEW/ SUBMITTED)

26. **Abid, M.** Rahut, D.B., Ali, A., Asad, S.A., (Under Review). Farm-level vulnerability, risk perceptions and adaptation to climate change in Rural Tanzania, *Science of the Total Environment*.
27. **Abid, M.**, Scheffran, J., & Schneider, U.A., (Under Review: Revised submission). Relating farmers' perceptions of climate change with observed trends and role of accurate perceptions in adapting agriculture to climate change in Pakistan. *Environmental Management*.
28. **Abid, M.**, Gioli, G., & Scheffran, J., (Submitted). Internal migration and changing environmental conditions: A farmers' perspective from rural Pakistan.

29. Elahi, E., Zhang, L., **Abid, M.**, Alugongo, G.M., Hasson, S.U. (Under review: Revised submission). Domestic water buffaloes: wastewater use, disease prevalence and associated economic losses in Punjab province, Pakistan, *Journal of preventive medicine*.
30. Elahi, E., Zhang, L., **Abid, M.**, Fazlani, S.A., & Farooque, M., (Under Review). Domestic water buffaloes; access to wastewater and milk yield losses: A case study of Punjab, Pakistan.
31. Zulfiqar, F., Ullah R., & **Abid, M.** (Under review). "Diffusion of "better practices": a farm level technology transfer investigation, *Journal of Technology Transfer*.
32. Shah A.A., Jingzhong, Y. **Abid, M.**, et al., (Under review). Flood risk perceptions and perceived impacts at household level: A case of Khyber Pakhtunkhwa province, Pakistan, *Environmental Hazards*.

BOOK CHAPTERS (In preparations)

1. **Abid, M.**, Zulfiqar, F., Raza, M., (In preparation). Policy options towards electronic waste pollution and management in Pakistan, In *Electronic Waste Pollution and Management* in Springer.
2. Shah, A.A., Ye, J., **Abid, M.** (In preparation). Assessment of Healthcare Facilities and their Preparedness Level in Pakistan- Strengths, Weaknesses, Opportunities and Threats: A Case of Khyber Pakhtunkhwa Province, an invited chapter for book titled: *Public Health and Disaster: Health Emergency and Disaster Risk Management (H-EDRM) in Asia*, Springer.

CONFERENCE PAPERS/ PRESENTATIONS

1. **Abid, M.**, Asad, S.A., (2017). A review of methods and approaches to assess climate change impacts on agriculture in Pakistan, *Impacts World conference 2017*, Potsdam Institute for Climate Impact Research (PIK), Potsdam, October 11-13, 2017
2. Asad, S.A., **Abid, M.**, (2017). The vulnerability of Pakistan's water sector to the impacts of climate change and its implications for the agriculture sector, *Impacts World conference 2017*, PIK, Potsdam, October 11-13, 2017
3. Zulfiqar, F., Shahzad, S., **Abid, M.**, Ullah, R. (2017). Managing water commons and the extent of their climate resilience in Punjab, Pakistan, *Global conference, practicing the commons: Self-governance, cooperation, and institutional change*, Utrecht, 10-14 July 2017.
4. **Abid, M.** (2017), Climate change impacts on rural health in Pakistan, A keynote presentation at 8th International Health Conference at KMU, Peshawar, April 25-27, 2017.
5. **Abid, M.**, & Scheffran, J. (2016), Climate change adaptation to sustain local food security; a farmers' perspective from Pakistan at *Data Analysis and Modeling in Earth Sciences (DAMES)*, University of Hamburg, September 26-28, 2016.
6. **Abid, M.**, Scheffran, J. (2016), Climate change and rural-out migration: a farmers' perspective from rural Pakistan, the 33rd IGC, Beijing, China, August 21-25, 2016.
7. **Abid, M.** & Scheffran, J. (2016). Investigating the role of local actors and climate change adaptation in enhancing food security among farming communities in Pakistan, *Cambridge Conference on Global Food Security 2016*, Cambridge University, UK, June 23-24, 2016.

8. **Abid, M.** & Scheffran, J. (2016). Impact of farm-level adaptation to climate change on agricultural productivity and farmers' wellbeing: Empirical evidence from Pakistan, General Assembly of European Geoscience Union (EGU), Vienna Austria, April 17-22, 2016.
9. **Abid, M.** (2015). The role of social networks in adapting agriculture sector to climate change: implications for sustainable agriculture in Pakistan, International Geographical Union Regional Conference, Moscow, Russia, August 17-21, 2015.
10. **Abid, M.** & Scheffran, J. (2015). Managing climate-induced risks and adaptation in the agriculture sector; a case of Punjab province, Pakistan, Global Conference on Climate-Smart Agriculture, Le Coram, Montpellier, France, March 16-18, 2015.

REVIEWER FOR

- | | |
|---|---|
| – Regional Environmental Change (2016) | – Professional Geographer (2016) |
| – Natural Hazards (2015; 2016) | – Journal of Cleaner production (2016) |
| – Sustainability journal (2016; 2017) | – Natural Resources Forum J. (2016) |
| – Int. J. Sust. Dev. and World Ecology (2015) | – Int. J. Disaster Risk Reduction (2016) |
| – Int. J. Clim. Chang. Strat. & Managt. (2017) | – Oncotarget (2017) |
| – Climate and Development (2017) | – Climatic Change (2017) |
| – Sarhad Journal of Agriculture (2017) | – Asian Journal of Agriculture and Biology (2018) |
| – Adaptation Future conference (2018) | – Climate and Development (2018) |
| – International J. Disaster Risk Studies (2018) | |

CITATIONS/ RESEARCHGATE SCORE

- ResearchGate score: 20.65, https://www.researchgate.net/profile/Muhammad_Abid17
- Google citations (as of 26 May 2018) <https://scholar.google.com.pk/citations?user=sMeD-ncAAAAJ&hl=en>

	All	Since 2013
<u>Citations</u>	218	213
<u>h-index</u>	7	7
<u>i10-index</u>	5	5

TRAINING RECEIVED

- | | |
|---|---------|
| – Advanced Scientific Writing Course (5 days) | 2016-17 |
| – Training course on Workflow of Statistical Analysis with STATA: Data (5 days) | 2016 |
| – Scientific Writing Course (5 days) | 2015 |
| – Training on Crafting a Research Proposal (2 days) | 2015 |
| – Training course on Introduction to Stata (5 days) | 2015 |
| – Training course on General Algebraic Modelling System (5 days) | 2015 |
| – Training course on General Algebraic Modelling System (5 days) | 2014 |
| – Geographic information system (GIS) software ArcGIS (10 days) | 2014 |
| – Starting A Professional Career in Industry (2 days) | 2014 |
| – Writing Skills for Science and Research (2 days) | 2014 |

- Training course on General Algebraic Modelling System (5 days) 2013
- Intensive Advanced German Language course (A1, A2, and B1) (6 Months) 2012
- Workshop on High-Efficiency Irrigation System (HEIS) (2 days) 2011
- Short course on Research methods with SPSS and Minitab (5 days) 2009
- Training Course on Gender Analysis and Project Preparation (5 days) 2008
- Training Course on Database through MS Access (5 days) 2008
- Short Course on Effective Communication (5 days) 2008

REFERENCES

1. Prof. Dr. Jürgen Scheffran, Professor in Geography and Head of Research Group Climate Change and Security, University of Hamburg, Grindelberg 7, 20144 Hamburg, Germany, Email: juergen.scheffran@uni-hamburg.de; Phone: +49 40 42838 7722
2. Prof. Dr. Uwe Schneider, Professor of Agricultural and Resource Economics and Group Leader Agricultural Economics and Resource Management, Grindelberg 5, 20144 Hamburg, Germany, Email: uwe.schneider@uni-hamburg.de; Phone: +49 40 42838 6593
3. Dr. Arif Anwar, Country Head, International Water Management Institute (IWMI), Lahore Pakistan, Email: a.anwar@cgiar.org; Phone: +92 42 35299504-07