

# Shiza Aslam

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## EDUCATION

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Central European University, University of Aegean, Lund University, University of Manchester [Erasmus Mundus]	<b>Hungary, Greece, Sweden</b>
Master's degree in Environment, Science Policy & Management Recipient of Erasmus Mundus Scholarship	<b>2020</b>
National University of Sciences & Technology (NUST)	<b>ISL, Pakistan</b>
Bachelor's degree in Environmental Engineering	<b>2017</b>

## PUBLICATION

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- **Aslam, S.**, Qazi, S., Syed, J. (2023). A value chain analysis: Identifying barriers and enablers for PVC circularity in Pakistan. Waste Management. (Under Review)
- Javed, K., **Aslam, S.**, Syed, J. (2023). Policy Coherence on Import of Hazardous Plastics in Pakistan: A Comparative Analysis of Domestic Regulations and Potential Solutions. (In progress)
- **Aslam, S.**, Tsydenova, N., Masood, M. Assessing Climate Change Impacts of Plastic Waste Management Policies in 8 countries of South Asia: A Life Cycle Assessment Approach. (In Progress)
- **Aslam, S.**, Qazi, S., Syed, J. (2023). How Circular is Polyvinyl Chloride (PVC) in Pakistan: A Dynamic Flow Analysis of PVC from 2007 to 2020. Resources, Conservation & Recycling (under review)
- Ibtihaj. **Aslam, S.**, Hussain, U. (2023). Assessment of Plastic Pollution in Coastal Areas of Karachi: Case Study of West Warf, Kemari Jetty, and Manora. Marine Bulletin. (Accepted) **Supervised Graduate Project**
- **Aslam, S.**, Tzoraki, O., & Krasakopoulou, E. (2021). Anthropogenic Litter in Freshwater Bodies & their Estuaries in Lesvos, Greece. Journal Environmental Science & Pollution Research.
- **Aslam, S.**, Ali, F., Batool, A., & Sheikh, Z. (2021) Application of material flow analysis for the assessment of current municipal solid waste management in Karachi, Pakistan. Waste Management & Research

## RELEVANT EDUCATION & TRAINING

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- 2023: Young Leaders training by Prevent Waste Alliance, Germany - *Scholarship*
- 06/2023: Masterclass on Lifecycle Assessment by Young Professional at International Solid Waste Association
- 12/2020: Circular Economy Fellow, Switch-Asia Leadership Academy on Circular Economy, Remote
- 09-10/2020: Life Cycle Summer School, Forum for Sustainability through Life Cycle Innovation, Remote; Project: A sustainable life cycle recipe book - Application of a regional LCM toolbox for food cycle
- 01/2019: ISWA-SWISS Winter School, University of Arlington, USA (landfill design and management) *Scholarship*

## GRANTS AND AWARDS

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- APN - Value Chain Mapping & Capacity Building of Pakistani Government Stakeholders to Implement Basel Convention's Amendments to Enhance Control of the Transboundary Movements of Plastic Waste, 2022 (40,000 \$)
- WIEGO - Mapping the Landscape of Waste Pickers in Pakistan: Challenges, Opportunities, and Organizational Strategies, 2022 (10,000 \$)
- APVN - Lifecycle assessment of four major groups of vinyl products manufactured in Pakistan, 2023 (10,000 \$)
- Royal Academy - Mapping of Open Burning of Municipal Waste in Pakistan and Identification of Underlying Factors and Key Drivers, 2023 (20,000 £)

## WORK EXPERIENCE

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<b>Stimulus Pvt ltd</b>	<b>KHI, Pakistan</b>
<b>Circular Economy consultant</b>	<b>Feb 2023 - Finish Date</b>
• Collaborated with international consultants on "Exploratory Study on Investment Constraints and Potential in Circular Economy Sectors" to develop a detailed roadmap for implementing reform actions with the Board of Investment (BOI), resulting in increased efficiency and profitability for businesses involved in circular economy practices.	
<b>Karachi School of Business and Leadership</b>	<b>Karachi, Pakistan</b>
<b>Research Fellow</b>	<b>July 2022 - Present</b>

- Provide strategic direction and operational oversight of the recently established institute “Circular Plastic Institute” while incorporating feedback from KSBL and stakeholders, resulting in developing annual research roadmap, securing 4 research grants, a number of knowledge products (research papers, news articles, webinars, etc.) to communicate results with various target groups.
- Analyze the interactions between production systems, consumption patterns, and their environmental consequences, the institute aims to provide insights that guide the transformation of industries towards more circular and sustainable practices.
- Direct the development and implementation of a comprehensive research and collaboration agenda, resulting in a 50% increase in partnerships with local and international stakeholders.
- Organize and facilitate round tables, consultative sessions, and engagement plans for the Circular Plastic Institute (CPI), fostering strong relationships with corporate partners and resulting in a 30% increase in participation from industry leaders and policymakers.
- Cultivate strategic partnerships with local and international stakeholders to secure \$80K in funding for research initiatives in first quarter of onboarding.

### **Comsats University**

**Isl, Pakistan**

#### **Research Fellow**

**Sep 2022 - Present**

- Secured a research grant of \$40K through writing and submitting a comprehensive proposal
- Developed and implemented a comprehensive research design and methodology, resulting in a deep understanding of the socio-economic and political factors that hindered the implementation of Basel Amendments in Pakistan.
- Utilized dynamic material flow analysis to analyze the metabolism of PVC at a national level, providing valuable insights into its circularity potential and identifying areas for improvement.
- Conducted an empirical value chain analysis to support PVC circularity efforts, identifying key stakeholders and their roles in the value chain to streamline processes and enhance control over transboundary movements of plastic waste.

### **International Consulting Associates**

**LHR, Pakistan**

#### **Waste Management Expert (consultant)**

**Oct 2022 - Finish Date**

- Conducted a comprehensive diagnostic analysis of marine pollution, including solid waste, plastic waste, sewage, industrial wastewater, and marine litter, resulting in the identification of key gaps and challenges for effective waste management. Collaborated with consultants to develop an inclusive plan for marine waste management.

### **UN-HABITAT Pakistan**

**ISL, Pakistan**

#### **Project Coordinator**

**Feb 2022 – Jun 2022**

- Facilitate stakeholder engagement among local stakeholders, community representatives, and international delegates to support donor funded project in Karachi. Facilitate rapid assessments of urban revitalization and GHG emission reduction. Monitoring and reporting on project’s community engagement components.
- Together with a team of senior consultants and evaluators, monitor & assess level of success achieved in target cities regarding CGPI. Review and understanding of the CGPI indicators by the stakeholders and initiatives (any projects) taken for achieving the key indicators. Review the data collection, entry and reporting process in the sample cities and identifying key challenges and limitations. Recommend actions to be undertaken by different stakeholders to improve the CGPI.

### **Ouroboros Waste Management**

**KHI, Pakistan**

#### **Partner and Consultant**

**Dec 2019 – Present**

- As a core member of a leading consultancy firm, contributed expertise to international and national organizations as well as donor-funded projects, focusing on environmental consultancy in waste management and circular economy issues.
- Utilized strong analytical skills and conducted comprehensive statistical analysis, feasibility assessments, and socio-economic evaluations for both large-scale and small-scale waste-related development projects.
- Synthesized information from diverse sources, performed data analysis and modeling, and evaluated policies tailored to specific waste management challenges.
- Led the drafting of policies addressing waste management issues and provided insights based on lessons learned, stakeholder engagement, situational analysis, and system assessments.

- Led project development efforts, successfully winning multiple consultancy projects and actively contributing to their execution.
- Demonstrated exceptional leadership qualities by spearheading various projects, coordinating multidisciplinary teams, and ensuring project delivery within stipulated timelines and budgets.

**UN-HABITAT - Global**

**KHI, Pakistan**

**Waste Management Expert**

**Jun 2021 – Sep 2021**

- Provided guidance and technical support for Waste Wise Cities Tool (WaCT) implementation, conducted trainings, and reviewed and contributed to final report. Ensured quality control and adherence to methodology as part of the “Identification of Global Plastic Waste Leakage Hotspots and Flows and City Waste Assessments in Hotspot Cities” UNEP-funded project.

**World Bank**

**LHR, Pakistan**

**Lifecycle Assessment Research -Short Term Consultant**

**Mar 2021 – Sep 2021**

- Consolidate conclusions of existing studies on plastic waste composition in South Asian countries, available treatment and disposal, region specific climate change impact under “Costs of climate change of plastic, Plastic Free Rivers and Seas for South Asia” project
- Create impact and material flow inventories for plastic (per polymer type) for South Asian region. Assess the lifecycle environmental impact of plastic industry with focus on global warming potential using ecoinvent database (UPR). Monetize the global warming impact of plastic. Compare economic implications of alternative regional scenarios of plastic waste management.
- Formulate the policy recommendations based on the results and write a preliminary report.

**UN-HABITAT - Global**

**Remote, Kenya**

**Urban Basic Service Intern**

**Jan 2021 – Jun 2021**

- Develop concept notes, full project proposals, and development for project preparation together with 3 senior waste experts.
- Support waste management projects managed by the unit; Support ‘Waste Wise Cities’ (an initiative of UNH) activities incl. creating newsletter, managing relations with affiliates and city members, conduct roundtable meeting; Research and create a comprehensive list of waste-related funding opportunities and marketplaces; Conduct WWC roundtable on ‘Smart Waste Management – how tech can support solid waste operations’ and write follow-up brief for newsletter.

**Global Green Growth Institute**

**Remote, South Korea**

**Green Cities Intern**

**Aug 2020 – Dec 2020**

- Assist in research on topics such as sustainable development & climate change in the waste sector; Analyse & summarise research into reports; Prepare power points documents, training modules, policy analyses, and other analytical products as required.

**Engro Polymer & Chemicals Limited (EPCL)**

**KHI, Pakistan**

**Circular Plastic Graduate Consultant**

**Jun 2020 – Nov 2020**

- Modelled material & volume flow of plastic waste across various lifecycle stages in Pakistan for the year 2019. Data from the export bureau and UN Comtrade was compiled on the imports for four polymer classifications: polyethylene, polystyrene, polyvinyl chloride, and others reported by mass (kg).
- Calculation environmental impact for sub-processes such as illegal dumping, burning, informal recycling, waste in use, and unattended waste was done upon validating the estimates from two experts and literature; Results were used by Engro to develop an internal strategy and shared with the Ministry of Climate.

**SysLab**

**Budapest, Hungary**

**Policy Intern**

**Aug 2019 – Oct 2019**

- Analyse data pertinent to chemicals/fertilizer utilisation and their environmental & health impact in Europe & Central Asia; Draft detailed reports covering an in-depth analysis of policies & review of the usage and status-quo of chemicals, pesticides, and fertilizers in Europe and Central Asia.

**University of the Aegean**

**Mytilene, Greece**

**Researcher**

**Mar 2019 – Aug 2019**

- Design research methodology to collect & analyse samples of anthropogenic litter (AL) from 5 sites to assess anthropogenic litter abundance in the freshwater bodies in Lesvos. Total of 1,622 litter items are collected from the 5 sites and coded into 30 different sub-material categories of AL following the protocol developed by the EU MSFD Technical Subgroup on Marine Litter
- Published peer-reviewed paper based and presented recommendations to develop pollution prevention and control strategies.

## **PROJECT EXPERIENCE**

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**Karachi School of Business and Leadership**

**KHI, Pakistan**

**Project Lead**

**May 2023 – Present**

- Led and directed the project "Mapping of Open Burning of Municipal Waste in Pakistan and Identification of Underlying Factors and Key Drivers," overseeing all aspects of research, data collection, and analysis.
- Designed and implemented a comprehensive research methodology to identify areas, sources, substances, and leading drivers of open burning occurrences, resulting in a clear understanding of the environmental and health risks associated with this practice.
- Collaborated with interdisciplinary teams to develop innovative solutions for mapping hotspot areas, modeling pollution transport trajectories to communities, and assessing characteristics of at-risk populations.
- Organized and facilitated consultative sessions and engagement plans to gather insights from stakeholders, including local communities, government officials, and environmental organizations, fostering stronger relationships and building awareness about open burning hazards.

**Karachi School of Business and Leadership**

**Karachi, Pakistan**

**Project and Technical Lead**

**July 2023 – Present**

- Led technical initiatives as the Technical Lead in carry a detailed lifecycle assessment (LCA) of four major groups of vinyl products manufactured in Pakistan namely, (a) Non pressure pipes; (b) Rigid sheets; (c) Foam boards by collaborating with a cross-functional team to establish lifecycle inventory (LCI) and examining environmental impacts, resource consumption, and sustainability factors.
- Enhanced the industry's understanding of the environmental impact of different vinyl product categories, driving informed decisions for sustainable manufacturing processes and improved product designs.

**Karachi School of Business and Leadership**

**Karachi, Pakistan**

**Project and Technical Lead**

**Sep 2022 – Sep 2023**

- Led technical initiatives as the Technical Lead in Mapping the Landscape of Waste Pickers in Pakistan: Challenges, Opportunities, and Organizational Strategies
- Mapped out the landscape of organizations, communities, and agencies that are involved or work with waste pickers in any capacity, providing valuable insights into ensuring inclusive and safe circular economy approaches, reducing inequality and poverty through potential partnerships and collaboration opportunities.
- Conducted in-depth analysis to identify and evaluate the key threats and challenges faced by waste pickers in Pakistan, resulting in the establishment of baseline to develop targeted strategies to address these issues and improve their working conditions.

**Ouroboros Waste Management**

**Karachi, Pakistan**

**Project and Technical Lead**

**Feb 2022 – Mar 2022**

- Led the project for Tearfund (client) to develop a methodology to assess, evaluate, and monitor extended producer responsibility strategies in developing countries, offering valuable insights for enhancing end-of-life product management approaches
- Provided critical information to entities to establish better end-of-life product management strategies, including a guide on how and what data to collect to assess the current waste management system and its landscape, to investigate the social impacts of existing waste management system and prospect impact of EPR, and to identify impact hotspots.

**Independent (Confidential)**

**(Remote) Karachi, Pakistan**

**Project and Technical Lead****Dec 2021 – Jan 2022**

- Conduct LCA of circular Kitchen (geography: Scandinavia) – undertaking environmental analysis of a wood-based cabinet that was designed following eco-design principles. Specifically, evaluate (a) hot spots for impacts reduction and (b) potential benefits occurred practical adaptation of eco-design in circular kitchen conception – using OpenLCA and ecoinvent 3.6 database (cut-off values)

**Ouroboros Waste Management****Karachi, Pakistan****Technical Advisor****Aug 2021 – Sep 2021**

- Provide the required technical support for the implementation of the WaCT and WFD survey (Step 1+2 of WaCT) in 2 cities of Pakistan (Lahore and Muridke) in coordination with the local consultant; Conduct technical training of relevant staff and evaluate waste flows together with policy intervention and infrastructure investment gaps for the improved municipal solid waste management system in three cities and draft report for the study.

**Ouroboros Waste Management****Karachi, Pakistan****Junior Consultant****Feb 2021 – Mar 2021**

- Conducted situation Analysis & Policy Recommendations for Solid Waste Management for Lahore. Project encompassed the collection of primary information and data as well as undertook stakeholder consultations for the situation analysis and policy recommendations for municipal solid waste management for Lahore. The study proposed cost-effective and sustainable models for delivering solid waste management for the city.

**Ouroboros Waste Management****Karachi, Pakistan****Junior Consultant****Oct 2020 – Dec 2020**

- Conducted national review on medical waste management practices in Pakistan. Assessed safety challenges associated with MWM, aimed at identifying potential areas of immediate support that can be provided to the Punjab Govt. as part of its efforts to cope with MWM issues associated with the pandemic..

**VOLUNTEER EXPERIENCE**

International Solid Waste Association (ISWA)

**2018 - Present**

- Initiated ISWA YPG regional group in Pakistan to facilitate communication & networking among stakeholders in the waste management sphere and to help raise awareness for sustainable production and consumption.
- Lead Online Discussion Group for young professional and Organise & conduct monthly thematic discussions and webinars. Leading member of ISWA YPG leadership team.

**LANGUGAES AND HOBBIES**

- English (Fluent); Urdu (Native); Punjabi (Native); Hindi (intermediate); Sindhi (intermediate)
- Book reading, watching anime