

# HASSAN BUKHARI

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## EDUCATION

- University of Michigan** (Ann Arbor, Michigan) May 2015  
M.S. Natural Resources and Environment Sustainable Systems **GPA 3.85**
- Fulbright Masters Scholarship
  - Graduate Certificate in Complex Systems
  - Elected Field of Study Student Leader
- Lahore University of Management Sciences** (Lahore, Pakistan) June 2012  
B.S. Physics **GPA 3.40**

## EXPERIENCE

- Hagler Bailly Pakistan, Environmental Specialist** (Islamabad, Pakistan) 8/2015 – Present
- Conduct Environmental Impact Assessment of major development projects.
  - Responsibilities include proposal writing, field survey planning and execution, data analysis, impact assessment and report writing.
  - Project Manager for two 330 MW power plants in Block II of Thar Coalfields, backup manager for ADB funded Batumi bypass road in Georgia, backup manager for JICA funded coal power plants and transport corridor in Lakhra. Responsibilities include client liaison, team and budget management.
  - Competent with the following models: DRIFT for flow impacts due to dams, AERMOD for air pollutant dispersion modelling, SOUNDPLAN for noise impact modelling, and ArcGIS for spatial analysis.
- Erb Institute for Global Sustainable Enterprise, Research Assistant** (Ann Arbor, Michigan) 6/2015 – 12/2015
- Analyzed the effect of local demographics on the implementation of sustainability initiatives by companies in the US by using statistical techniques on large national data sets.
- Great Lakes Commission, Student Consultant** (University of Michigan) 3/2014 – 5/2015
- Member of a 6 person interdisciplinary team that developed a methodology to assess policies for reducing agricultural runoff in the Great Lakes region based on economic, ecologic, social, and political metrics.
  - Evaluated the usefulness of 4 ecological modelling software to formulate policies.
  - Performed a network analysis on the organizations involved in the area.
  - Analyzed USDA county level census data across 10 sub-watersheds for relevant spatial and temporal trends.
- Cheruvu Company, Co-founder** (Ann Arbor, Michigan) 12/2014 – Present
- Raised \$10,000 and ran a pilot with 27 farming families in Telangana, India in 2015.
  - Developed strategy and scaled operations to 50 villages in 2016 with a \$35,000 grant from Dow.
  - Engaged diverse stakeholders to co-create the business model.
  - Winner of the Jonathan Bulkley Water Prize, the Dow Distinguished Award for Interdisciplinary Sustainability, semifinalist of the Global Social Venture Competition 2015 and semifinalist of Wharton India Economic Forum Startup Competition 2016.
- LUMS, BS Thesis and Research Assistant** (Lahore, Pakistan) 8/2011 – 12/2012
- Computationally modeled a parabolic trough solar concentrator on Matlab and verified accuracy against available data. Optimized geometry for construction in an error prone environment.
  - Constructed and tested three parabolic troughs using local material and expertise.

## **PUBLICATIONS**

*Intel, Undermining the Conflict Mineral Industry.* Andrew Hoffman, Camila España, Ian Robinson, Hassan Bukhari, and Dannan Hodge. WDI Publishing, University of Michigan, February 20, 2015.

*Evaluation of Different Approaches for Controlling Phosphorus Pollution in the Maumee River Watershed.* Hassan Bukhari, Julia Elkin, Meghan Hemken, Nathaniel Lichten, Robert Pettit and Samantha Shattuck. MS Capstone, Deep Blue, University of Michigan. May 2015.

*Domestic Concentrated Solar Thermal Power Plants for Pakistan.* Abdullah Khalid and Hassan Bukhari. BS Thesis, Lahore University of Management Sciences, May 2012.

## **CONFERENCE PRESENTATIONS**

H. Bukhari. “Kashmir Catfish and the Dam”, Agents of Change, HEC, Islamabad, December 2-4 2016

H. Bukhari. “CHERUVU: Big Data and Local Practices”, Innovation for Development - Towards a Sustainable Future, NUST, Islamabad, December 4-6 2015

H. Bukhari, S. Shattuck, J. Elkin, N. Lichten, M. Hempen, R. Petit, “Evaluating Policy Options for the Control and Prevention of Nonpoint Source Pollution and Harmful Algal Blooms”, 2015 Great Lakes Sedimentation Workshop, National Oceanic and Atmospheric Administration, Ann Arbor Michigan May 20-21, 2015

H. Bukhari, “Reducing Nutrient Runoff in the Western Lake Erie Basin” Global Issues Symposium on Water Resources, University of Michigan, Ann Arbor, Michigan. February 6, 2015

H. Bukhari, S. Shattuck, J. Elkin, N. Lichten, M. Hempen, R. Petit, “Evaluating Policy Options for the Control and Prevention of Nonpoint Source Pollution and Harmful Algal Blooms”, 2014 Great Lakes Sedimentation Workshop, National Oceanic and Atmospheric Administration, Ann Arbor, Michigan. June 5-6, 2014

H. Bukhari. “Estimating Trends in Freshwater Dolphin Habitat from LANDSAT Data”. IMAGIN SPPC, Schoolcraft College, Livonia, Michigan. January 30, 2014

A. Khalid, H. Bukhari. “Domestic Concentrated Solar Thermal Co-generation Plants for Pakistan”. Conference on Pakistan’s Energy Options: Technology, Availability, Affordability, and the Role of Regional Grids. Islamabad, Pakistan, March 20-21, 2012.

H. Bukhari. W. S. Veljee, J. Baig, K. Rizvi, S. A. Raza. “Water Management in Ayubia National Park”. International Conference on Water Resources Engineering and Management, University of Engineering and Technology, Lahore, March 7-8, 2011.

## **AWARDS**

Dow Distinguished Award for Interdisciplinary Sustainability, 2015 (team award of \$35,000)

Dow Award for Interdisciplinary Sustainability, 2015 (team award of \$5,000)

Jonathan Bulkley Water Prize, 2015

Fulbright Masters Scholarship. 2013-2015

Special Contribution to Rugby at LUMS, 2012

## **SKILLS AND INTERESTS**

**Computer Skills:** Matlab, ArcGIS, R, SimaPro, GREET, LaTeX, Stella, Python, FORTRAN, UCINET, AERMOD, HEC-DSSVue, HEC-RAS, SOUNDPLAN, and DRIFT.

**Rugby:** Michigan RFC: Player 2013-15; LUMS RFC: Player 2008-12, Rep 2010, and Captain 2011.