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CURRENT AFFILIATION

University of Minnesota, Applied Economics Postdoctoral Associate	Saint Paul, MN <i>Aug 2019 - present</i>
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University of Minnesota - Duluth, Natural Resources Research Institute Postdoctoral Associate	Duluth, MN <i>Aug 2019 - present</i>
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EDUCATION

University of New Mexico Ph. D. in Economics	Albuquerque, NM <i>Aug 2014 - July 2019</i>
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University of New Mexico M. A. in Economics	Albuquerque, NM <i>July 2016</i>
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University of Dhaka Master of Development Studies	Dhaka, Bangladesh <i>July 2013</i>
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University of Dhaka MBA in Finance	Dhaka, Bangladesh <i>July 2010</i>
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Bangladesh University of Engineering and Technology B. Sc. in Civil Engineering	Dhaka, Bangladesh <i>November 2006</i>
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JOB MARKET PAPER

“Pale Blue Dot: Nationwide water impairment and property values”. (with Nolte, C., & Polasky, S.)

TEACHING INTERESTS

Environmental Economics, Natural Resource Economics and Ecological Modeling, Quantitative and Mathematical Economics, Econometrics, Microeconomics, Introductory and Intermediate Macroeconomics, Energy Economics, Public Economics, Agricultural Economics, Managerial Economics

SCHOLARLY STATISTICS

- **Google Scholar Profile:** <https://scholar.google.com/citations?hl=en&user=iEUMZPzBI94C>
- **Github Profile:** <https://github.com/mamun4105>
- **Researchgate profile:** https://www.researchgate.net/profile/Saleh_Mamun
- **Publons profile:** <https://publons.com/researcher/2630985/saleh-mamun/peer-review/>

PUBLICATIONS

PEER REVIEWED

1. **Mamun, S.**, Horn, B.P., & Chermak, J.M. (2020) “[Private vs. Public Prisons? A Dynamic Analysis of the Long-Term Tradeoffs Between Cost and Recidivism Efficiency in the US Correction System](#)” *Applied Economics*, p. 1-13.
2. **Mamun, S.**, Hansen, J.K., & Roni, M.S. (2020) “[Supply, Operational, and Market Risk Reduction Opportunities: Managing Risk at a Cellulosic Biorefinery](#)” *Renewable and Sustainable Energy Reviews*, 121, p.109677.
3. Bernknopf, R., Broadbent, C., Adhikari, D., **Mamun, S.**, Tidwell, V., Babis, C., & Pindilli, E. (2019) “[Multi-Resource Analysis: An Analysis of Natural Resource Tradeoffs in the Piceance Basin, Colorado Using the Net Resource Assessment \(NetRA\) Proof of Concept and Decision Support Tool](#)” U.S. Geological Survey Scientific Investigations Report 2019–5086, 1-40.
4. Hansen, J.K., Roni, M.S., Nair, S.K., Hartley, D.S., Griffel, L.M., Vazhnik, V., & **Mamun, S.** (2019) “[Setting a baseline for Integrated Landscape Design: Cost and risk assessment in herbaceous feedstock supply chains](#)” *Biomass and Bioenergy*, 130, 1-13.
5. Horn, B.P., Li, X., **Mamun, S.**, Guerrin, P., McCrady, B., & French, M.T. (2018) “[The Economic Costs of Jail-Based Methadone Maintenance Treatment](#)” . *The American Journal of Drug and Alcohol Abuse*, 44(6), 611-618.
6. Roni, M.S., Chowdhury, S., **Mamun, S.**, Marufuzzaman, M., Lein, W., & Johnson, S. (2017). “[Biomass Co-Firing Technology with Policies, Challenges, and Opportunities: A Global Review](#)”. *Renewable & Sustainable Energy Reviews*, 78, 1089-1101.
7. Roni, M. S., Eksioğlu, S. D., Jin, M., & **Mamun, S.** (2016). “[A Hybrid Inventory Policy with Split Delivery under Regular and Surge Demand](#)”. *International Journal of Production Economics*, 172, 126-136.

PAPERS UNDER REVIEW

8. **Mamun, S.**, Mamkhezri, J., & Chermak, J.M. “Discrete Choice Experiment on Renewable Portfolio Standards to Map Household Preferences” (submitted to **Energy Economics**)
9. Polasky, S., Johnson, J.A., Bo, H., Dampha, N.K., Kula, L.; Long, Y., **Mamun, S.**, Maldonado, L., Strombom, E., & Takrar, S., “The Dasgupta Review: Biodiversity Loss, Potential Solutions, and the Big Lift for Transformative Change” (submitted to **Environmental and Resource Economics**)
10. Nolte, C., Boyle, K.J., Chaudhry, A.M., Clapp, C.M., Guignet, G., Hennighausen, H., Kushner, I., Liao, Y., **Mamun, S.**, Pollack, A., Richardson, J., Sundquist, S., Swedberg, K., & Uhl, J.H., “[Studying the Impacts of Environmental Amenities and Hazards with Nationwide Property Data: Best Data Practices for Interpretable and Reproducible Analyses](#)” (submitted to **PloS One**)

PAPERS IN PREPARATION

11. “[Pale Blue Dot: Nationwide water impairment and property values](#)”. (**Job Market Paper**, preparing for **Journal of Environmental Economics and Management** with Nolte, C., & Polasky, S.)
12. “[Spatial tradeoff between economic goods and ecosystem services: A case of the oil and gas industry](#)”. (preparing for **Applied Economics** with Broadbent, C., & Bernknopf, R.)
13. “[Estimating the impact of Critical Habitat designation on the values of undeveloped lots and houses](#)”. (preparing for **Nature Sustainability** with Nelson, E.J., & Nolte, C.)
14. “Valuing water quality in the US using a national data set on property values”. (preparing for **Proceedings of the National Academy of Sciences** with Castillo, A., Swedberg, K., Zhang, J., Andarge, T., Boyle, K., Cardoso, D., Keiser, D., Kling, C.L., Nolte, C., Papenfus, M., Phaneuf, D., & Polasky, S.)
15. “Natural Capital Index (NCI)” (preparing for **Nature** with Polasky, S., Daily, G., & their lab members)

16. “Forest Ecosystem Services Valuation: A Choice Experiment Approach”. (preparing for **Forest Policy and Economics** with McIntosh, C.R., & Polasky, S.)
17. “Global current and potential forestry return maps”. (preparing for **Environmental Research Letters** with Sohngen, B., Smith, J., & Polasky, S.)
18. “Optimizing land-use investments for climate mitigation and climate resilience”. (preparing for **TBD** with Dampa, N.K., Polasky, S., Ricketts, T., & Luers, A.)

OTHER REPORT

19. Martone, J., Hernandez, J., Tadros, M., Jimenez, E.J., Breidenbach, A., Juarez, R.A., **Mamun, S.**, & Ouattara, B. (2019). “Evaluation of ADVANCE at University of New Mexico (UNM) 2018-19 Annual Evaluation Report: An ADVANCE at University of New Mexico project Funded by the National Science Foundation (NSF)”

CONFERENCE AND INVITED TALKS *presented by co-author

1. **Mamun, S.**, McIntosh, C.R., & Polasky, S. (2022) “Forest Ecosystem Services Valuation: A Choice Experiment Approach”. International Society of Forest Resource Economics (ISFRE) annual meeting, May 23-25, 2022, Traverse City, Michigan
2. **Mamun, S.**, Sohngen, B., Smith, J., & Polasky, S. (2022) “Global current and potential forestry return maps”. International Society of Forest Resource Economics (ISFRE) annual meeting, May 23-25, 2022, Traverse City, Michigan
3. **Mamun, S.**, *Nelson, E.J., & Nolte, C. (2021-2022) “Estimating the impact of Critical Habitat designation on the values of undeveloped lots and houses”.
 - North American Congress for Conservation Biology, July 16-21, 2022, Reno, Nevada
 - MEA 86th Annual Meetings, March 25-27, 2022, Minneapolis, Minnesota
 - 42nd Agricultural Law Education Symposium, November 4-6 2021, Salt Lake City, Utah
 - PLACES Webinar, June 28, 2021, Virtual.
4. *Broadbent, C., Bernknopf, R., & **Mamun, S.** “Spatial tradeoff between economic goods and ecosystem services: A case of the oil and gas industry”. Western Economic Association International, July 01, 2021, Hawaii (Virtual).
5. **Mamun, S.**, Polasky, S., & Nolte, C. (2021) “Water Impairment, water quality, and property values”. PLACES Webinar, June 29, 2021, Virtual.
6. *Clarke-Sather, A.R., **Mamun, S.**, Nolan, D., Schoff, P., Aro, M., & Ulrich, B. (2020) “Towards Prospective Sustainability Life Cycle Assessment”. International Design Engineering Technical Conferences and Computers and Information in Engineering Conference, August 17, 2020, Virtual.
7. **Mamun, S.**, Roni, M.S., & Hansen, J.K. (2018). “Implementing Junction Tree Algorithm to Estimate Biomass In-feed Reactor Reliability”. Idaho National Laboratory Intern EXPO, August 09, 2018, Idaho Falls, ID.
8. **Mamun, S.**, Thacher, J., & Chermak, J.M. (2018). “Geospatial and Individual Heterogeneity with Attribute Non-attendance and Importance Ranking in Renewable Portfolio Standard Discrete Choice Experiment”, Department of Economics, Brigham Young University - Idaho, July 12, 2018, Rexburg, ID. (invited speaker)
9. *Horn, B.P., Li, X., **Mamun, S.**, Guerrin, P., McCrady, B., & French, M.T. (2018). “The Economic Impact of Jail-Based Medication Assisted Treatment: A Cost-Effectiveness Analysis of a Large Jail-Based Methadone Maintenance Treatment Program in New Mexico” W-EIGHTY Issues in Criminal Justice, CPDD 80th Annual Scientific Meeting, June 11, 2018, San Diego, CA.
10. **Mamun, S.**, Hansen, J.K., & Chermak, J.M. (2017). “Modeling Biomass Grower Payment in an Integrated Landscape Design Approach”. Shared Knowledge Conference, University of New Mexico, November 8, 2017, Albuquerque, NM

11. **Mamun, S.**, & Hansen, J.K. (2017). “Modeling Biomass Grower Payment”. Idaho National Laboratory Intern EXPO, August 11, 2017, Idaho Falls, ID.
12. Kalhor, E., Zemlick, K., Joshi, J., Walter, K., Mamkhezri, J., Lu, N., **Mamun, S.**, Thacher, J., & Chermak, J.M. (2017). “Modeling the Energy/Water Nexus in New Mexico”. New Mexico EPSCoR, All Hands Meeting, April 27, 2017, Albuquerque, NM
13. **Mamun, S.**, Horn, B.P., & Chermak, J.M. (2017). “Cost and Recidivism Efficiency Trade-off: A Case of US Correction System”. Shared Knowledge Conference, University of New Mexico, April 6, 2017, Albuquerque, NM

RESEARCH FUNDING AND GRANT SUBMISSIONS

- “Forest Health: Statewide Application of Forest Management Assessment Tool”. 2021-2023. Senior Personnel on successful grant for \$500,000 from Legislative-Citizen Commission on Minnesota Resources.
- “Nature’s benefits to people in Minnesota”. 2023-2026. Lead PI on grant in preparation for \$500,000 from Legislative-Citizen Commission on Minnesota Resources.
- “Climate Mitigation Through Improved Forest Understory Health”. 2021. Co-PI on Legislative-Citizen Commission on Minnesota Resources grant for \$179,000. Initial submission rejected with requested revisions. Currently revising for the next funding cycle.
- “Forest management and ecosystem services”. 2020. Co-PI on Institute on Environment, UMN Impact Goals grant for \$49,500. Initial submission rejected. Currently revising for the next funding cycle.

RESEARCH EXPERIENCE

Postdoctoral Associate, University of Minnesota, Aug 2019 - Present.

- **Water Resources Economics:** I organize a bi-weekly inter organizational water resources scientists and economists group, that includes two members of National Academy of Science. We started several projects and aiming to make an inter-organizational institute for continuous excellence.
- **Natural Capital Project:** Working on The World Bank Natural Capital Index project. The goal is to find optimized land use land cover at global scale and rank countries based on natural capital.
- **Forest Optimization:** Life Cycle Analysis of forest harvest production. Optimization of forest harvest considering market and non-market forest services. In addition, conducted a choice experiment on ecosystem services valuation. Repeated choice experiment is in planning phase.
- **Johnson-Polasky Lab:** As a senior member of JP lab, I took initiative to several projects and advised, guided, and facilitated student’s success.

Research Assistant, University of New Mexico, Aug 2014 - July 2019.

- **The Science Impact Laboratory for Policy and Economics (SILPE)** (Aug 2017 - July 2019)
 - Research Assistant to Prof. Richard Bernknopf funded by United States Geological Survey (USGS)
 - Ongoing collaborative research work between USGS Science and Decisions Center, SILPE and Sandia National Laboratories.
 - Assessing the net resource value of natural resources in a complex 2 by 2 system.
- **Cradle to Career Policy Institute (CCPI)** (Jan 2019 - July 2019)
 - Research Assistant to Prof. Elizabeth Yakes Jimenez funded by National Science Foundation (NSF)
 - Project title: The ADVANCE at UNM.
- **The Center on Alcoholism, Substance Abuse, and Addictions (CASAA)** (Aug 2016 - July 2018)
 - Research Assistant to Prof. Brady P. Horn funded by National Institute of Health (NIH).

- Project title: Understanding the Societal Value of the Health Improvements Associated with Providing Medication Assisted Treatment in a Large Urban Jail.
- **Established Program to Stimulate Competitive Research (EPSCoR), NM** (Jan 2017 - May 2017)
 - Research Assistant to Profs. Janie M. Chermak and Jennifer Thacher funded by National Science Foundation (NSF).
 - I am a part of The Social and Natural Science Nexus group. I am in charge of conducting a discrete choice experiment on Renewable Portfolio Standards.

Graduate Summer Intern, Idaho National Laboratory, Summer 2017 and Summer 2018.

- **Biomass Grower Payment:** Modeled biomass grower payment in an integrated landscape design approach.
- **Cellulosic Biorefinery Risk:** Compared risk and risk mitigation strategies in advanced vs conventional feedstock supply system.
- **Integrated Process Optimization for Biochemical Conversion:** Implemented junction tree algorithm to estimate the biomass in-feed reactor using probabilistic graphical theory.

TEACHING EXPERIENCE

- **Pedagogical Training and Development:** Graduate Teaching Academy Scholar holding a Certificate for College Teaching. I worked as Graduate Assistant at Center for Teaching Excellence where I design effective teaching techniques for graduate teaching assistants and faculties and assess evidenced-based learning outcomes.
- **Instructor:** ECON 106: Introductory Microeconomics - Online (Fall 2016), Number of students: 76, Teaching Evaluation: 4.38/5
- **Lab Instructor:** ECON 105: Introductory Macroeconomics (Fall 2014), Number of students: 93, Teaching Evaluation: 4.1/5, 3.8/5, and 3.7/5
- **Guest Lecturer:**
 - ECON 106: Introductory Microeconomics, Topic: Market disequilibrium and Public goods, 2 Lectures. Spring 2018 (UNM)
 - ECON 309: Introductory Statistics and Econometrics, Topic: Basic summary statistics, 1 Lecture, Fall 2016 (UNM)
- **Teaching Assistant** *graduate courses:
 - ECON 105: Introductory Macroeconomics (Fall 2014) with Prof. Christina Reiser
 - ECON 106: Introductory Microeconomics (Spring 2015) with Prof. Brady Horn
 - *ECON 501: Microeconomics I (Fall 2015) with Prof. Jennifer Thacher
 - *ECON 508: Statistics and Introduction to Econometrics (Fall 2015) with Prof. David Van-Dar-goes
 - *ECON 514: Macroeconomics II (Spring 2016) with Prof. Matias Fontenla
 - ECON 105 - online: Introductory Macroeconomics (Summer 2016) with Prof. Dave Dixon
 - ECON 106 - online: Introductory Microeconomics (Summer 2016) with Prof. Dave Dixon

PROFESSIONAL ACTIVITIES

- Journal Reviewer - *Biofuels, Bioproducts and Biorefining; Bioenergy Research; Hydrobiologia; GCB Bioenergy; International Journal of Green Energy; Journal of Computational Economics; Nature Sustainability; Renewable and Sustainable Energy Reviews*
- Grant Reviewer, Graduate and Professional Student Association, UNM - Fall 2017
- Membership in American Economic Association

REFERENCES

Stephen Polasky

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Department of Applied Economics / Department of Ecology, Evolution and Behavior
University of Minnesota
St Paul, MN
✉: polasky@umn.edu
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Kevin Boyle

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Director, Program in Real Estate
Virginia Polytechnic Institute and State University
Blacksburg, VA
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Christoph Nolte

Assistant Professor
Department of Earth and Environment
Boston University
Boston, MA
✉: chrnolte@bu.edu
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