

JAY STERLING GREGG

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Research Profile

Socio-Technical Transitions; Circular Economy; Climate Change; Sustainable Development; Fossil Fuel Carbon Emissions; Diet and Land Use; Smart, Sustainable & Liveable Cities, Collective Action. ORCID: 0000-0003-3946-3099

Positions

2019 –	Senior Researcher, UNEP-DTU Partnership, Denmark
2015 – 2019	Senior Researcher, Technical University of Denmark
2010 – 2015	Researcher, Technical University of Denmark, Risø National Laboratory for Sustainable Energy, Denmark
2009 – 2010	Field Scientist, Wilderness Research Foundation, Antarctica
2006 – 2009	Research Assistant, Pacific Northwest National Laboratory, Joint Global Change Research Institute, USA
2008	Instructor (Climatology), University of Maryland, USA
2008	Research Intern, Oak Ridge National Laboratory, USA
2007	Research Intern, World Resources Institute, USA
2006	Research Intern, Institute for Geographic Studies and Natural Resources Research, China
2005 – 2006	Research Assistant, University of Maryland, USA
2003 – 2005	Research Assistant, University of North Dakota, USA
2004	Research Intern, Seoul National University, South Korea
2001 – 2003	Instructor (Statistics), Colorado State University, USA

Education

2009	PhD in Geography, University of Maryland, USA
2005	MS in Space Studies, University of North Dakota, USA
2005	Grad. Certificate in Geographical Information Sciences, University of North Dakota, USA
2003	Grad. Certificate in Statistical Theory and Methods (equivalent), Colorado State University
2001	BS in Mathematics, BA in General Philosophy, Colorado State University, USA
1997	BA in fine and Performing Arts (Music), Mesa State College, USA

Memberships of scientific committees, review panels

European Energy Research Alliance- Economic, Environmental and Social Impacts (EERA e3s), Joint Program Coordinator
Universities in the Strategic Energy Technology Plan (UNI-SET), Representative
Sustainability Journal, Editor

PhD Supervision

Mapping micro-contexts- Informing architectural urban design and development, 2021
Integrating operational knowledge in design of energy efficient facilities, 2020
Technical and socio-economic impacts of urban energy transitions, 2019
The translation of energy targets to local renewable energy developments in the context of social acceptance, 2019

Courses Responsible

2019	Smart Cities, DTU, Denmark
2014-2018	Smart Connected and Liveable Cities, DTU, Denmark
2017-2019	Sustainable Urban Development – A Project Oriented Approach, DTU, Denmark
2008	Introduction to Climatology, University of Maryland, USA
2001-2003	Introduction to Statistics, Colorado State University, USA

Selected Publications

- Ahanchian, M., **Gregg, J. S.**, Tattini, J., & Karlsson, K. B. (2019). Analyzing effects of transport policies on travelers' rational behaviour for modal shift in Denmark. *Case Studies on Transport Policy*.
- Wierling, A., V. Schwanitz, J. Zeiß, C. Bout, C. Candelise, W. Gilcrease, **J. Gregg** (2018). Statistical Evidence on the Role of Energy Cooperatives for the Energy Transition in European Countries. *Sustainability*, 10(9), p.3339.
- Bohnes, F.A., **J.S. Gregg**, A. Laurent (2017). Environmental impacts of future urban deployment of electric vehicles: Assessment framework and case study of Copenhagen for 2016-2030. *Environmental Science and Technology* 51(23): 13995-14005
- Robledo-Abad, C., H.J. Althaus, G. Berndes, S. Bolwig, E. Corbera, F. Creutzig, J. Garcia-Ulloa, A. Geddes, **J.S. Gregg**, H. Haberl, S. Hanger, R.J. Harper, C. Hunsberger, R.K. Larsen, Ch. Lauk, S. Leitner, J. Lilliestam, H. Lotze-Campen, B. Muys, M. Nordborg, M. Ölund, B. Orlowsky, A. Popp, J. Portugal-Pereira, J. Reinhard, L. Scheffle, P. Smith (2017). Does bioenergy production affect sustainable development? A systematic review of scientific knowledge. *Global Change Biology – Bioenergy* 9(3), 541-556
- Gregg, J.S.**, O. Balyk, O. Solér, C. H. C. Pérez, S. La Greca, T. Kober (2016) Development of Pathways to Achieve the SE4ALL Energy Efficiency Objective: Global and Regional Potential for Energy Efficiency Improvements. Climate Change and Sustainable Development Programme (CCSD), Systems Analysis Division, DTU Management Engineering: Report to the United Nations Environmental Program Copenhagen Centre for Energy Efficiency (UNEP C2E2). http://orbit.dtu.dk/files/130601116/Final_Report.pdf
- Zeng, N., A.W. King, B. Zaitchik, S.D. Wulschleger, **J. Gregg**, S. Wang, & D. Kirk-Davidoff (2012). Carbon sequestration via wood harvest and storage: An assessment of its harvest potential. *Climatic Change* DOI 10.1007/s10584-012-0624-0
- R.J. Andres, T.A. Boden, F.-M. Bréon, P. Ciais, S. Davis, D. Erickson, **J.S. Gregg**, A. Jacobson, G. Marland, J. Miller, T. Oda, J.G.J. Olivier, M.R. Raupach, P. Rayner, & K. Treanton (2012). A synthesis of carbon dioxide emissions from fossil-fuel combustion. *Biogeosciences* 9: 1845-1871
- Gregg, J.S.** & S.J. Smith (2010). Global and regional potential for bioenergy from agricultural and forestry residue biomass. *Mitigation and Adaptation Strategies for Global Change* 15 (3): 241-262.
- Gregg, J.S.** (2010). National and regional generation of municipal residue biomass and the future potential for waste-to-energy implementation. *Biomass and Bioenergy* 34 (3): 379-388.
- Gregg, J.S.** & R.C. Izaurrealde (2010). Effect of crop residue harvest on long-term crop yield, soil erosion, and nutrient balance: trade-offs for a sustainable bioenergy feedstock. *Biofuels* 1 (1): 69-83.
- Gregg, J.S.**, L.M. Losey, R.J. Andres, T.J. Blasing, & G. Marland (2009). The Temporal and Spatial Distribution of Carbon Dioxide Emissions from Fossil-Fuel Use in North America. *Journal of Applied Meteorology and Climatology* 48 (12): 2528-2542.
- Gregg, J.S.**, R.J. Andres, & G. Marland (2008). China: the emissions patterns of the world leader in CO₂ emissions from fossil fuel consumption and cement production. *Geophysical Research Letters* 35: L08806.
- Zeng, N., Y. Ding, J. Pan, H. Wang, & **J. Gregg** (2008). Climate Change—the Chinese Challenge. *Science* 319: 730-731.
- Gregg, J.S.** & R.J. Andres (2008). A Method for Estimating the Temporal and Spatial Patterns of Carbon Dioxide Emissions from National Fossil-Fuel Consumption. *Tellus* 60B: 1-10.
- Gurney, K., W. Ansley, D. Mendoza, B. Seib, G. Petron, G. Frost, **J. Gregg**, M. Fischer, D. Pataki, K. Ackerman, S. Houweling, K. Corbin, R. Andres, & T.J. Blasing (2007). Research Needs for Process-driven, Finely Resolved Fossil Fuel Carbon Dioxide Emissions. *EOS* 88 (49): 542-543.
- Marland, G., R.J. Andres, T.J. Blasing, T.A. Boden, C.T. Broniak, **J.S. Gregg**, & L.M. Losey (2006). Part II: Energy, Industry, and Waste Management Activities: An Introduction to CO₂ Emissions from Fossil Fuels, in *State of the Carbon Cycle Report (SOCCR)*. <http://cdiac.ornl.gov/SOCCR/final.html>