

Ralph P. Hall, MEng, S.M., S.M., PhD

Associate Professor, Urban Affairs and Planning, School of Public and International Affairs,
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Professional Preparation

Stanford University, California	Civil and Environmental Engineering	Postdoc 2008
MIT, Massachusetts	Technology, Management, and Policy	PhD 2006
MIT, Massachusetts	Technology and Policy	S.M. 2002
MIT, Massachusetts	Civil and Environmental Engineering	S.M. 2002
University of Southampton, England	Civil Engineering	MEng 1999

Appointments

2016-pr.	Associate Professor, Urban Affairs and Planning, VT
2016-pr.	SPIA Undergraduate Programs Director, VT
2013-pr.	Affiliate Scholar, Global Forum on Urban and Regional Resilience, VT
2013-pr.	Affiliate Member, Myers-Lawson School of Construction, VT
2011-2016	Faculty Fellow, Metropolitan Institute, VT
2009-2016	Assistant Professor, Urban Affairs and Planning, VT
2006-2008	Postdoctoral Scholar, Civil & Environmental Engineering, Stanford

Publications**Books**

- Ashford, N. A. and **Hall, R. P.** (2018) [Technology, Globalization, and Sustainable Development: Transforming the Industrial State. Revised Edition](#). Routledge, New York, 774 pages. ISBN: 9781138605534.
- Gudmundsson, H., **Hall, R. P.**, Marsden, G., and Zietsman, J. (2015) [Sustainable Transportation: Indicators, Frameworks, and Performance Management](#). Springer, New York, 304 pages. ISBN: 9783662469231.
- Ashford, N. A. and **Hall, R. P.** (2011) [Technology, Globalization, and Sustainable Development: Transforming the Industrial State](#). Yale University Press, New Haven, 752 pages. ISBN: 9780300169720.

Peer-reviewed Articles

- Hall, R. P.**, Ashford, R., Ashford, N. A., and Arango-Quiroga, J. (2019) [Universal Basic Income and Inclusive Capitalism: Consequences for Sustainability](#). *Sustainability*, 11, 4481.
- Domínguez, I., Oviedo-Ocaña, E.R., Hurtado, K., Barón, A., and **Hall, R. P.** (2019) [Assessing Sustainability in Rural Water Supply Systems in Developing Countries Using a Novel Tool Based on Multi-Criteria Analysis](#). *Sustainability*, 11, 5363. [Supplementary material](#).
- GC, R.K., Ranganathan, S., and **Hall, R. P.** (2019) [Does Rural Water System Design Matter? A Study of Productive Use of Water in Rural Nepal](#). *Water*, 11, 1978.
- Yeganeh, A. J., Pearce, A. R., **Hall, R. P.**, and Hankey, S. (2018) [A social equity analysis of the U.S. public transportation system based on job accessibility](#). *Journal of Transportation and Land Use*, 11(1), pp. 1039–1056.

- Stedman, S., Mnyimbiri, A. M., Kawonga, Z., Malota, M., Njera, D., **Hall, R. P.**, and Holm, R. (2018) [Using irrigation to kick-start multiple-use water services for small-scale farmers in Malawi: A case study of the Nkhata Bay District](#). *Irrigation and Drainage*.
- Ashford, N. A., and **Hall, R. P.** (2018) [Achieving Global Climate and Environmental Goals by Governmental Regulatory Targeting](#). *Ecological Economics*, 152, 246-259.
- An, Y., Garvin, M., and **Hall, R. P.** (2017) [Pathways to Better Project Delivery: the Link between Capacity Factors and Urban Infrastructure Projects in India](#). *World Development*, 94, 393–405.
- Hall, R. P.**, Ranganathan, S, and Raj, G. C. (2017) [A General Micro-level Modeling Approach to Analyzing Interconnected SDGs: Achieving SDG 6 and More through Multiple-Use Water Services \(MUS\)](#). *Sustainability*, 9(2), 314.
- Van Houweling, E., **Hall, R. P.**, Carzolio, M., and Vance, E. (2016) [My neighbor drinks clean water, while I continue to suffer:” an analysis of the intra-community and intra-household impacts of a rural water project in Mozambique](#). *Journal of Development Studies*. DOI: 10.1080/00220388.2016.1224852.
- Hall, R. P.**, Vance, E. A., and Van Houweling, E. (2014) [The Productive Use of Rural Piped Water in Senegal](#). *Water Alternatives*, 7(3), 480-498.
- Hall, R. P.**, Van Koppen, B., and Van Houweling, E. (2013) [The Human Right to Water: The Importance of Domestic and Productive Water Rights](#). *Science and Engineering Ethics*, 20(4), 849-868.
- Van Houweling, E., **Hall, R.P.**, Sakho Diop, A., Davis, J., and Seiss, M. (2012) [The role of productive water use in women’s livelihoods: Evidence from rural Senegal](#). *Water Alternatives* 5(3): 658-677.
- Ashford, N. A., **Hall, R. P.**, and Ashford, R. (2012) [The Crisis in Employment and Consumer Demand: Reconciliation with Environmental Sustainability](#). *Environmental Innovation and Societal Transitions*, 2, 1-22.
- Ashford, N. A., and **Hall, R. P.** (2011) [The Importance of Regulation-Induced Innovation for Sustainable Development](#). *Sustainability*, 3(1), 270-292. [See the [European Commission’s summary](#) of the paper.]
- Ramani, T. L., Zietsman, J., Gudmundsson, H., **Hall, R. P.**, and Marsden, G. (2011) [Framework for Sustainability Assessment by Transportation Agencies](#). *Transportation Research Record*, No. 2242, 2011, pp. 9–18.

Book Chapters

- Hall, R. P.**, Gudmundsson, H., Marsden, G., and Zietsman, J. (2014) [Sustainable Transportation](#). *The Encyclopedia of Transportation: Social Science and Policy*, SAGE, pp. 1300-1305.

Book Reviews

- Hall, R. P.** (2012) [Book Review. Cents and Sustainability: Securing Our Common Future by Decoupling Economic Growth from Environmental Pressures](#). *Journal of Planning Education and Research*, 32: 240-242.

Magazine Articles

- Ashford, N. A., **Hall, R. P.**, and Ashford, R. (2012) [Addressing the Crisis in Employment and Consumer Demand: Reconciliation with Environmental and Financial Sustainability](#). *The European Financial Review*, October-November, 2012, pp. 63-68.
- Ashford, R., **Hall, R. P.**, and Ashford, N. A. (2012) [Broadening Capital Acquisition with the Earnings of Capital as a Means of Sustainable Growth and Environmental Sustainability](#). *The European Financial Review*, October-November, 2012, pp. 70-74.

Ashford, N. A., and **Hall, R. P.** (2012) [Regulation-Induced Innovation for Sustainable Development](#). *Administrative & Regulatory Law News*, Spring 2012, 37(3): 21-23.

Selected Reports

Hall, R. P., Ranganathan, S., Agnew, J., Christie, M. E., Clark, S., Kirk, G., Lucero, C. and Archibald, T. (2019) “Virginia Tech Food Access and Security Study”. Virginia Tech, Blacksburg. Available at: <https://vtechworks.lib.vt.edu/handle/10919/95218>

Van Houweling, E., Botta, R., and **Hall, R. P.**, Holm, R., Tembo, M., and Jenkins, M. (2017) “Marion Medical Mission Shallow Well Evaluation.” Submitted to Marion Medical Mission, November 2017.

Hall, R. P., Van Houweling, E., Polys, N., Wenzel, S., and Williams, P. (2015) “Interdisciplinary Exploratory Research: Visualizing Water Services for Decision Making. Field Report.” Submitted to the Institute for Society, Culture, and Environment, Virginia Tech, August 2015.

Hall, R. P., Davis, J., Van Houweling, E., Vance, E., Carzolio, M., Seiss, M., and Russel, K. (2014) “Impact Evaluation of the Mozambique Rural Water Supply Activity Under a Cooperative Agreement between MCC and Stanford University.” Submitted to the Millennium Challenge Corporation, April 15, 2014, 120 pages. DOI: 10.13140/RG.2.1.1498.9844. Available at: https://data.mcc.gov/evaluations/index.php/catalog/76/related_materials

Hall, R. P., Van Houweling, E., Vance, E., Carzolio, M., and Davis, J. (2014) “Evaluation of Eight Small-Scale Solar Systems in Cabo Delgado, Mozambique.” Submitted to the Millennium Challenge Corporation, April 15, 2014, 51 pages.

Hall, R. P., Davis, J., Vance, E., Van Houweling, E., Carzolio, M., and Russel, K. (2013) “Impact Evaluation Design and Implementation Report. Impact Evaluation of the Rural Water Activity in Nampula, Mozambique.” Submitted to the Millennium Challenge Corporation, April 30, 2013, 35 pages.

Hall, R. P., Van Houweling, E., Vance, E., Hope, R., and Davis, J. (2011) “Assessing the Link between Productive use of Domestic Water, Poverty Reduction, and Sustainability. Senegal Country Report.” Submitted to the Water and Sanitation Program, World Bank, September 9, 2011, pages 95.

Short Bio

Dr. Ralph Hall is an Associate Professor in the Urban Affairs and Planning (UAP) program at Virginia Tech and is the Director of Undergraduate Programs in the School of Public and International Affairs (SPIA). He has over two decades of academic and professional experience in applying the concept of sustainable development to infrastructure systems with a specific emphasis on transportation systems in developed regions, and rural water supply and sanitation systems in developing regions. Dr. Hall has co-lead two major research projects that studied the emerging concept of multiple-use water services (MUS) in Colombia, Senegal, and Kenya for the World Bank’s Water and Sanitation Program (WSP), and evaluated a rural water program in Nampula, Mozambique for the US Millennium Challenge Corporation (MCC). Dr. Hall has also published two significant co-authored works on “[Sustainable Transportation: Indicators, Frameworks, and Performance Management](#)” (2015) and “[Technology, Globalization, and Sustainable Development: Transforming the Industrial State](#)” (2018). Since 2016, and following the tragic loss of a library at Mzuzu University (Mzuni) in Malawi, Dr. Hall has co-lead the [Mzuni Library Initiative](#) that shipped over 8,000 books to Malawi in 2017 and has developed the conceptual designs for a new state-of-the-art library for Mzuni. Dr. Hall is currently developing a research agenda around new economics, with a focus on binary economics.

Professional Society Involvement

Member of the Transportation Research Board (TRB) Committee on Transportation and Sustainability (ADD40); Member of TRB, 2002-present; Member of the Society of Socio-Economists, 2013-present.

Reviewer

Journal of Water, Sanitation, and Hygiene for Development; Transportation Research Board Annual Meeting; Sustainability; International Journal of Environmental Research and Public Health; Transportation Research Record; The Journal of Development Studies; Transport Policy; Transportation Research Part D: Transport and Environment; Environmental Earth Sciences; Environmental Innovation and Societal Transitions; ISPRS International Journal of Geo-Information; Journal of Environmental Planning and Management; Journal of Planning History; Plos One; Science and Engineering Ethics; Sustainability: Science, Practice, and Policy; The William & Mary Policy Review; Water Alternatives; and World Development.

Courses

UAP 1004 – Introduction to UAP Careers
SPIA / GEOG 2244 – Sustainable Urbanization
UAP 4914 – Senior Seminar in Public and Urban Affairs
UAP 5324 / BSE 4394 – Water Supply and Sanitation in Developing Countries
UAP 5764 – International Development Planning Studio
UAP 5784 – Technology, Globalization, and Sustainable Development
UAP 5854G – Advanced Urban Infrastructure Planning
Study Abroad – Experience WASH in Malawi

Grants

2019 School of Public and International Affairs/Urban Affairs and Planning Program License Grant, Virginia Tech, “UrbanFootprint,” PI. \$3,000
2019 Virginia Tech Office of Outreach and International Affairs (OIA) Grant, “VT Food Access and Security Study,” Co-PI. \$10,000
2019 Virginia Tech College of Science Grant, “VT Food Access and Security Study,” Co-PI. \$5,000
2018 Virginia Humanities Grant, “Addressing Inequality – A one-day public humanities summit produced collaboratively by Virginia Tech and Virginia Union University, exploring Dr. Martin Luther King’s vision of a “Beloved Community”, its roots in the Civil Rights Movement, and its meaning in the present day.” \$2,500
2018 Global Systems Science Supplemental Grants (January and June), “Supplemental Funding - Expanding the Mzuni-Virginia Tech Library Design Partnership to Include GSS-Related Research and Education Opportunities,” PI. \$5,000
2017 NSF Convergence HTF: RCN: “Enhancing small and mid-level farm viability through a systems-based research network: Linking technology and sustainable development and practice,” Steering Committee Member. See the [HARVEST website](#). \$500,000
2017 Center for International Research Education and Development (CIDER) Grant, “Virginia Tech Food Access and Security Study,” Co-PI. \$7,025
2017 Global Systems Science Seed Grant, “Expanding the Mzuni-Virginia Tech Library Design Partnership to Include GSS-Related Research and Education Opportunities,” PI. \$8,000
2017 Virginia Tech Grant, “Beloved Community Initiative,” PI. \$30,000

- 2017 Office of General Education, Virginia Tech, “Sustainable Urbanization – Pathways Course Development Grant,” Co-PI. \$10,000
- 2015-2016: ISCE Grant, “Interdisciplinary Exploratory Research: Visualizing Water Services for Community Decision Making,” PI. \$35,000
- 2015 Global Education Office, Curriculum Globalization Grant, PI. \$3,500
- 2013-2015: VT, Center for Innovation in Learning, “Peering into the Black Box of Learning via Cognitive Life Logging,” Google Glass, Single PI. \$10,000
- 2012-2015: University Grants Commission, India, “Creating an International Program for Sustainable Infrastructure Development between the Indian Institute of Technology in Kanpur (IITK) and VT,” PI. \$476,442
- 2012-2014: VT, AdvanceVT, “Mentoring micro-grant to work with Prof. Robert Ashford,” Single PI. \$1,500
- 2010-2013: Millennium Challenge Corporation, “Impact Evaluation of the Millennium Challenge Corporation-supported Rural Water Investment in Nampula, Mozambique,” Co-PI. \$814,235
- 2009-2010: National Cooperative Highway Research Program (NCHRP), “Sustainability Performance Measures for State Departments of Transportation and Other Transportation Agencies,” Senior Advisor. \$10,000
- 2007-2010: Water and Sanitation Program (WSP), World Bank, “Assessing the Link between Productive Use of Domestic Water, Poverty Reduction, and Sustainability (Colombia, Senegal, and Kenya),” Postdoc (2007-2008, Stanford University) / Co-PI (2009-2010, VT). \$710,000

Awards

- [2016 Certificate of Appreciation](#) “For Excellent Work on Committee Outreach” (Awarded by the Transportation Research Board of the National Academies)
- 2015 Outstanding Dissertation Advisor Award in Social Sciences, Business, Education, and Humanities, Virginia Tech
- [2015 Certificate of Appreciation](#) “For Conducting the Baseline Work with Identifying All Committees with a Perspective on Sustainability” (Awarded by the Transportation Research Board of the National Academies)
- [2014 Certificate of Appreciation](#) “For Outstanding Service as Research Coordinator for the Committee on Transportation and Sustainability (ADD40)” (Awarded by the Transportation Research Board of the National Academies)
- [2013 Excellence in Scholarship Award](#) from the College of Architecture and Urban Studies (CAUS), Virginia Tech
- [2012 Green Book Festival](#) – Winner – Best Business Book: [Technology, Globalization and Sustainable Development: Transforming the Industrial State](#) – Dr. Nicholas A. Ashford and Dr. Ralph P. Hall
- [Lærebojsprisen, 2010](#) – Special award for a “strong international textbook project” (National Award – Denmark)