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CITIZENSHIP: U.S.A./Turkey

ACADEMIC and PROFESSIONAL APPOINTMENTS

Sep 2017–present Assistant Professor, Department of Geography
Texas A&M University

Jan 2010–Aug 2017 Research Assistant Professor, Department of Geography
Texas A&M University

Sep 2009–Dec 2009 Lecturer, School of Forestry and Environmental Studies
Yale University

Sep 2008–Aug 2009 Postdoctoral Scholar, School of Forestry and Environmental Studies
Yale University

Nov 2006–Aug 2008 Postdoctoral Scholar, Department of Geological and Environmental Sciences
Stanford University

Jun 2006–Aug 2006 Intern, **Millennium Institute**, Arlington VA

Sep 2006–Oct 2006 Graduate Research Assistant, Department of Natural Resources and
Aug 2000–May 2006 Environmental Sciences
University of Illinois at Urbana-Champaign

Sept 1997–June 2000 Graduate Research Assistant, Department of Industrial Engineering
Boğaziçi University

Sept 1998–June 1999 Graduate Teaching Assistant, Department of Industrial Engineering
Sept 1997–Dec 1997 **Boğaziçi University**

EDUCATION

2006 University of Illinois at Urbana-Champaign
 Ph.D. in Natural Resources and Environmental Sciences
 Dissertation: "Exploring Structure-Behavior Relations in Nonlinear Dynamic Feedback Models"

2000 Boğaziçi University, İstanbul, Turkey
 MS in Industrial Engineering
 Thesis: "Modelling a Wetland for Sustainable Development: Uluabat Lake"

1997 Boğaziçi University, İstanbul, Turkey
 BS in Industrial Engineering

RESEARCH INTERESTS

- Urbanization and sustainability
- Human-environment interactions
- Geospatial analysis of land change
- Systems analysis of socio-ecological dynamics

PEER-REVIEWED JOURNAL ARTICLES (* Advisee)

48. Mansur A, RI McDonald, **B Güneralp**, H Kim, P Hamel, C Callaghan, M Wolf, JA Puppim de Oliveira, V Liebelt, J Kuiper, I Martins, T Elmqvist, H Miguel Pereira. Nature futures for the urban century: Integrating multiple values into urban management. (accepted, *Environmental Science and Policy*).
47. Cao W, Y Zhou, **B Güneralp**, X Li, K Zhao, Z Huaguo. 2022. Increasing global urban exposure to flooding: an analysis of long-term annual dynamics. *Science of the Total Environment* 817: 153012.
46. Mahtta R, M Fragkias, **B Güneralp**, A Mahendra, M Reba, E Wentz, KC Seto. What matters more for urban land expansion: Population or economic growth? Evidence from 300+ cities, 1970-2014. (accepted, *npj Urban Sustainability*).
45. **Güneralp B**, X Xu*, W Lin*. 2021. Infrastructure Development with(out) Ecological Conservation: the Northern Forests in İstanbul. *Regional Environmental Change* 21: 86.
44. Coleman EA, B Schultz, V Ramprasad, H Fischer, P Rana, AM Filippi, **B Güneralp**, A Ma, C Rodriguez Solorzano, V Guleria, R Rana, F Fleischman. Limited effects of tree planting on forest canopy cover and rural livelihoods in Northern India. *Nature Sustainability* 4: 997-1004.
43. Cui W*, J Li, W Xu, **B Güneralp**. 2021. Industrial Electricity Consumption and Economic Growth: A spatio-temporal analysis across Prefecture-Level Cities in China from 1999 to 2014. *Energy* 222: 119932.
42. Dallimer M, M Goddard, Z Davies, S Guenat, M Ferguson, A Akanni, T Ahjokoski, P Anderson, F Angeletto, C Antoniou, A Bates, A Barkwith, A Berland, J Fisher, C Bouch, C Rega-Brodsky, L Byrne, D Cameron, R Canavan, T Chapman, S Connop, S Crossland, M Dade, D Dawson, C Dobbs, C Downs, E Ellis, F Escobedo, N Gulrud, **B Güneralp**, A Hahs, J Hale, C Hassall, M Hedblom, D Hochuli, T Inkinen, I-C Ioja, D Kendall, T Knowland, I Kowarik, S Langdale, S Lerman, I MacGregor-Fors, P Manning, P Massini, S McLean, D Mkwambisi, A Ossola, G P Luque, L Pérez-Urrestarazu, K Perini, G Perry, T Pett, K Plummer, R Radji, U Roll, S Potts, H Rumble, J Sadler, S de Saille, S Sautter, C Scott, A Shwartz, R Snep, C Soulsbury, M Stanley, T Van de Voorde, S Venn, P Warren, C-L Washbourne, M Whitling, N Williams, J Yang, K Yeshitela, K Yocom. 2021. A global horizon scan of the future impacts of robotics and autonomous systems on urban ecosystems. *Nature Ecology & Evolution* 5: 219-230.
41. Ma A, A M Filippi, Z Wang, Z Yin, D Huo, X Li, **B Güneralp**. 2021. Fast sequential feature extraction for recurrent neural network-based hyperspectral image classification. *IEEE Transactions on Geoscience and Remote Sensing*: 59(7): 5920-5937.
40. **Güneralp B**, M Reba, BU Hales, EA Wentz, KC Seto. 2020. Trends in urban land expansion, density, and land transitions from 1970-2010: a global synthesis. *Environmental Research Letters* 15(4): 044015.
39. Kim Y, N Galen, **B Güneralp**. 2020. A review of driving factors, scenarios, and topics in urban land-change models. *Land* 9(8): 246.
38. Castillo CR, İ Güneralp, BU Hales, **B Güneralp**. 2020. Scale-free structure of surface-water connectivity within a lowland river floodplain. *Geophysical Research Letters* 47(16): e2020GL088378.
37. McDonald RI, AV Mansur, F Ascensão, M Colbert, K Crossman, T Elmqvist, A Gonzalez, **B Güneralp**, D Haase, M Hamann, O Hillel, K Huang, B Kant, D Maddox, A Pacheco, H Pereira,

- K Seto, R Simkin, B Walsh, C Ziter. 2020. Research gaps in knowledge of the impact of urban growth on biodiversity. *Nature Sustainability* 3: 16-24.
36. Yi H*, U Kreuter, D Han, **B Güneralp**. 2019. Social segregation of ecosystem services delivery in the San Antonio region, Texas, through 2050. *Science of the Total Environment* 667: 234-247.
 35. McDonald RI, **B Güneralp**, C-W Huang, KC Seto, M You. 2018. Conservation priorities to protect vertebrate endemics from global urban expansion. *Biological Conservation* 224: 290-299.
 34. Yi H*, **B Güneralp**, U Kreuter, İ Güneralp, AM Filippi. 2018. Spatial and temporal changes in biodiversity and ecosystem services in the San Antonio River Basin, Texas, from 1984 to 2010. *Science of the Total Environment* 619–620: 1259-1271.
 33. **Güneralp B**, S Lwasa, H Masundire, S Parnell, KC Seto. 2018. Urbanization in Africa: Challenges and opportunities for conservation. *Environmental Research Letters* 13(015002).
 32. **Güneralp B**, Z Yuyu, D Ürge-Vorsatz, M Gupta, S Yu, P Patel, M Fragkias, X Li, KC Seto. 2017. Global scenarios of urban density and its impacts on building energy use through 2050. *Proceedings of the National Academy of Sciences of the United States of America* 114(34): 8945–8950.
 31. d'Amour CB, F Reitsma, G Baiocchi, S Barthel, **B Güneralp**, K-H Erb, H Haberl, F Creutzig, KC Seto. 2017. Future urban land expansion and implications for global croplands. *Proceedings of the National Academy of Sciences of the United States of America* 114(34): 8939–8944.
 30. Huang X*, J Yang, **B Güneralp**, M Burris. 2017. U.S. metropolitan spatial structure evolution: investigating spatial patterns of employment growth from 2000 to 2010. *Urban Science* 1(3): 28.
 29. You M, AM Filippi, İ Güneralp, **B Güneralp**. 2017. What is the direction of land change?: a new approach to land-change analysis. *Remote Sensing* 9(8): 850.
 28. Shen H, S Tao, Y Chen, P Ciais, **B Güneralp**, M Ru, Q Zhong, X Yun, X Zhu, T Huang, W Tao, Y Chen, B Li, X Wang, W Liu, J Liu, S Zhao. 2017. Urbanization-induced population migration has reduced ambient PM2.5 concentrations in China. *Science Advances* 3(7): e170030.
 27. Yi H*, **B Güneralp**, AM Filippi, U Kreuter, İ Güneralp. 2017. Impacts of land change on ecosystem services in the San Antonio River Basin, Texas, from 1984 to 2010. *Ecological Economics* 135: 125-135.
 26. Bai X, A Surveyer, T Elmqvist, FW Gatzweiler, **B Güneralp**, S Parnell, A-H Prieur-Richard, P Shrivastava, JG Siri, M Stafford-Smith, J-P Toussaint, R Webb. 2016. Defining and advancing a systems approach for sustainable cities. *Current Opinion in Environmental Sustainability* 23: 69-78.
 25. Saxena A, **B Güneralp**, R Bailis, G Yohe, C Oliver. 2016. Evaluating the resilience of forest dependent communities in Central India by combining the sustainable livelihoods framework and the cross scale resilience analysis: a novel approach. *Current Science* 110(7): 1195-1207.
 24. Muis S, **B Güneralp**, B Jongman, J Aerts, PJ Ward. 2015. Flood risk and adaptation strategies in Indonesia: a probabilistic analysis using globally available data. *Science of the Total Environment* 538: 445-457.
 23. **Güneralp B**, AS Perlstein, and KC Seto. 2015. Balancing urban growth and ecological conservation: a challenge for planning and governance in China. *Ambio* 44(6): 532-543.
 22. Conde D, F Colchero, **B Güneralp**, M Gusset, B Skolnik, M Parr, O Byers, K Johnson, G Young, N Flesness, H Possingham, and JE Fa. 2015. Opportunities and costs for preventing vertebrate extinctions, *Current Biology* 25(6): R219-R221.

21. **Güneralp B**, İ Güneralp, and Y Liu. 2015. Changing global patterns of urban exposure to flood and drought hazards. *Global Environmental Change* 31: 217-225.
20. McDonald RI, **B Güneralp**, W Zipperer, and PJ Marcotullio. 2014. The future of global urbanization and the environment. *Solutions* 5(6): 60-69.
19. Castello CR, İ Güneralp, and **B Güneralp**. 2014. Influence of changes in developed land and precipitation on hydrology of a coastal Texas watershed. *Applied Geography* 47: 154-167.
18. Duer-Balkind M*, K Jacobs, **B Güneralp**, and X Basurto. 2013. Resilience, social-ecological rules, and environmental variability in a two-species artisanal fishery. *Ecology and Society* 18(4): 50.
17. **Güneralp B**, İ Güneralp, CR Castello, and AM Filippi. 2013. Land change in the Mission-Aransas coastal region, Texas: implications for coastal vulnerability and protected areas. *Sustainability* 5: 4247-4267.
16. **Güneralp B**, KC Seto, and M Ramachandran. 2013. Evidence of urban land teleconnections and impacts on hinterlands. *Current Opinion in Environmental Sustainability* 5: 445-451.
15. **Güneralp B** and KC Seto. 2013. Futures of global urban expansion: uncertainties and implications for biodiversity conservation. *Environmental Research Letters* 8: 014025.
14. **Güneralp B**, M Reilly, and KC Seto. 2012. Capturing multiscalar feedbacks in urban land change: a coupled system dynamics spatial logistic approach. *Environment and Planning B* 39(5): 858-879.
13. Seto KC, **B Güneralp**, and LR Hutyra. 2012. Global forecasts of urban expansion to 2030 and direct impacts on biodiversity and carbon pools. *Proceedings of the National Academy of Sciences of the United States of America* 109(40): 16083-16088.
12. **Güneralp B** and KC Seto. 2012. Can gains in efficiency offset the resource demands and CO₂ emissions from constructing and operating the built environment? *Applied Geography* 32(1): 40-50.
11. Seto KC, M Fragkias, **B Güneralp**, and M Reilly. 2011. A meta-analysis of global urban land expansion. *PLoS ONE* 6(8): e23777.
10. Xu C, **B Güneralp**, GZ Gertner, and RM Scheller. 2010. Elasticity and loop analysis: tools for understanding forest landscape response to climatic change in spatial dynamic models. *Landscape Ecology* 25(6): 855-871.
9. Zuidema PA, RJW Brienen, HJ During, and **B Güneralp**. 2009. Do persistently fast-growing juveniles contribute disproportionately to population growth? A new analysis tool for matrix models and its application to rainforest trees. *American Naturalist* 174: 709-719.
8. **Güneralp B** and KC Seto. 2008. Environmental impacts of urban growth from an integrated dynamic perspective: a case study of Shenzhen, South China. *Global Environmental Change* 18(4): 720-735.
7. **Güneralp B**. 2007. An improved formal approach to demographic loop analysis. *Ecology* 88(8): 2124-2131.
6. **Güneralp B**, G Gertner, G Mendoza, and A Anderson. 2007. Evaluating probabilistic data with a possibilistic criterion in land-restoration decision-making: Effects on the precision of results. *Fuzzy Sets and Systems* 158(14): 1546-1560.
5. **Güneralp B** and G Gertner. 2007. Feedback loop dominance analysis of two tree mortality models: relationship between structure and behavior. *Tree Physiology* 27(2): 269-280.

4. **Güneralp B.** 2006. Towards coherent loop dominance analysis: progress in eigenvalue elasticity analysis. *System Dynamics Review* 22(3): 263-289.
3. Anderson AB, G Wang, S Fang, GZ Gertner, **B Güneralp**, and D Jones. 2005. Assessing and predicting changes in vegetation cover associated with military land use activities using field monitoring data at Fort Hood, Texas. *Terramechanics* 42(3-4): 207-230.
2. **Güneralp B**, G Mendoza, G Gertner, and A Anderson. 2003. Spatial simulation and fuzzy threshold analyses for allocating restoration areas. *Transactions in GIS* 7(3): 325-343.
1. **Güneralp B** and Y Barlas. 2003. Dynamic modelling of a shallow freshwater lake for ecological and economic sustainability. *Ecological Modelling* 167(1-2): 115-138.

JOURNAL ARTICLES IN REVISION or REVIEW (* Advisee)

2. Ahasan R*, **B Güneralp**. Transportation in urban land change models: a systematic review. (in review, *Journal of Land Use Science*).
1. Ren Q, C He, Q Huang, P Shi, **B Güneralp**. Indirect impacts of urban expansion on natural habitats far exceed direct impacts in global drylands. (in revision, *Nature Sustainability*).

BOOKS and SPECIAL ISSUES

2. Elmqvist T, M Fragkias, J Goodness, **B Güneralp**, PJ Marcotullio, RI McDonald, S Parnell, M Sendstad, M Schewenius, KC Seto, and C Wilkinson, eds. 2013. *Urbanization, Biodiversity and Ecosystem Services: Challenges and Opportunities - A Global Assessment*, UN Convention of Biological Diversity and Stockholm Resilience Centre, Springer, 755 pp.
1. Deng X, **B Güneralp**, and H Su. 2013. Special Issue on 'Observations and Modeling of the Climatic Impact of Land Use Changes' in *Advances in Meteorology*.

PEER-REVIEWED BOOK CHAPTERS

13. Koch K, GW Schade, AM Filippi, G Goessler, **B Güneralp**. 2020. Low key stationary and mobile tools for probing the atmospheric UHI effect, in *Spatial Variability in Environmental Science - Patterns, Processes, and Analyses*, edited Tiefenbacher J and Poreh D. IntechOpen, <http://dx.doi.org/10.5772/intechopen.89514>.
12. Shin Y-J, A Arneth, RR Chowdhury, GF Midgley; **B Güneralp (contributing author)** et al. 2019. Chapter 4: Plausible futures of nature, its contributions to people and their good quality of life, in *Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Global Assessment on Biodiversity and Ecosystem Services*, Bonn, Germany. 264 pp.
11. Haase D, **B Güneralp**, B Dahiya, X Bai, and T Elmqvist. 2018. Global Urbanization: Perspectives and Trends, in *The Urban Planet: Knowledge Towards Livable Cities*, Edited by: T. Elmqvist, X. Bai, N. Frantzeskaki, C. Griffith et al, Cambridge, 17-44 pp.
10. **Güneralp B.** 2016. Resource Use for Construction and Operation of Built Environments. *Handbook on Urbanization and Global Environmental Change*, Taylor & Francis, pp 77-92.
9. Elmqvist T, W Zipperer, **B Güneralp**. 2016. Urbanization, Habitat loss and Biodiversity Decline: Solution Pathways to Break the Cycle. *Handbook on Urbanization and Global Environmental Change*, Taylor & Francis, pp 139-151.

8. Dhakal S, KC Seto; A Bigio, H Blanco, GC Delgado, D Dewar, L Huang, A Inaba, A Kansal, S Lwasa, J McMahon, D Mueller, J Murakami, H Nagendra, A Ramaswami; **B Güneralp (contributing author)** et al. 2014. Chapter 12: Human Settlements, Infrastructure and Spatial Planning in *Climate Change 2014: Mitigation of Climate Change, Fifth Assessment Report*, Working Group III of the Intergovernmental Panel on Climate Change (IPCC), Geneva, Switzerland.
7. **Güneralp B.** 2014. Land-Use and Land-Cover Change (LULCC). In *Encyclopedia of Natural Resources*. Edited by: Wang, Y.Q., Taylor & Francis: New York, pp 328–337.
6. **Güneralp B**, RI McDonald, M Fragkias, J Goodness, PJ Marcotullio, and KC Seto. 2013. Urbanization forecasts, effects on land use, biodiversity, and ecosystem services. In *Urbanization, Biodiversity and Ecosystem Services: Challenges and Opportunities - A Global Assessment, UN Convention of Biological Diversity and Stockholm Resilience Centre*. Edited by: Elmqvist T et al., Springer, pp 439-454.
5. **Güneralp B**, A Tezer, and İ Albayrak. 2013. Local assessment of İstanbul: Biodiversity and ecosystem services. In *Urbanization, Biodiversity and Ecosystem Services: Challenges and Opportunities - A Global Assessment, UN Convention of Biological Diversity and Stockholm Resilience Centre*. Edited by: Elmqvist T et al., Springer, pp 291-311.
4. **Güneralp B** and KC Seto. 2013. Sub-regional assessment of China: Urbanization in biodiversity hotspots. In *Urbanization, Biodiversity and Ecosystem Services: Challenges and Opportunities - A Global Assessment, UN Convention of Biological Diversity and Stockholm Resilience Centre*. Edited by: Elmqvist T et al., Springer, pp 57-63.
3. Fragkias M, **B Güneralp**, KC Seto, and J Goodness. 2013. A synthesis of global urbanization projections. In *Urbanization, Biodiversity and Ecosystem Services: Challenges and Opportunities - A Global Assessment, UN Convention of Biological Diversity and Stockholm Resilience Centre*. Edited by: Elmqvist T et al., Springer, pp 409-437.
2. McDonald RI, PJ Marcotullio, and **B Güneralp**. 2013. Urbanization and global trends in biodiversity and ecosystem services. In *Urbanization, Biodiversity and Ecosystem Services: Challenges and Opportunities - A Global Assessment, UN Convention of Biological Diversity and Stockholm Resilience Centre*. Edited by: Elmqvist T et al., Springer, pp 31-52.
1. Elmqvist T, M Fragkias, J Goodness, **B Güneralp**, PJ Marcotullio, RI McDonald, S Parnell, M Schewenius, M Sendstad, KC Seto, C Wilkinson, M Alberti, C Folke, N Frantzeskaki, D Haase, M Katti, H Nagendra, J Niemelä, STA Pickett, CL Redman, and K Tidball. 2013. Stewardship of the biosphere in the Urban Era. In *Urbanization, Biodiversity and Ecosystem Services: Challenges and Opportunities - A Global Assessment, UN Convention of Biological Diversity and Stockholm Resilience Centre*. Edited by: Elmqvist T et al., Springer, pp 719-746.

EDITORIALS and PERSPECTIVES (°Peer-reviewed)

- 4°. Fleischman F, S Basant, A Chhatre, EA Coleman, HW Fischer, D Gupta, **B Güneralp**, P Kashwan, D Khatri, R Muscarella, JS Powers, V Ramprasad, P Rana, CR Solorzano, JW Veldman. 2020. Pitfalls of Tree Planting Show Why We Need People-Centered Natural Climate Solutions. *BioScience* 70(11): 947-950.
- 3°. Deng, X., RB Singh, J Liu and **B Güneralp**. 2016. Water productivity and integrated water resources management. *Physics and Chemistry of the Earth* 96: 1.

- 2°. Deng, X, **B Güneralp** and H Su. 2014. Observations and Modeling of the Climatic Impact of Land-Use Changes. *Advances in Meteorology* 2014: 1-2.
1. **Güneralp B.** 2011. Urban Growth Models in a Fast-Urbanizing World. *Urbanization and Global Environmental Change (UGEC) Viewpoints* 6: 29-32.

PEER-REVIEWED ARTICLES IN CONFERENCE PROCEEDINGS (*Advisee)

14. Kim, Y, G Newman, **B Güneralp**. 2019. A Systematic Review of Urban Land Change Modeling: Driving Factors, Topics, and Scenarios. *59th Annual Conference of Association of Collegiate Schools of Planning (ACSP)*, 24-27 October 2019, Greenville, SC.
13. Schade, GW, K Koch, AM Filippi, **B Güneralp**, and G Goessler. 2018. The atmospheric heat island of a mid-size urban area in Texas. *10th International Conference on Urban Climate (ICUC10)/14th Symposium on the Urban Environment*, NOAA CREST Institute of the City University of New York, The International Association for Urban Climate (IAUC), and American Meteorological Society (AMS) Board on the Urban Environment, 6-10 August 2018, New York, NY.
12. **Güneralp B**, Duer-Balkind M*, K Jacobs, and X Basurto. 2015. Resilience, social-ecological rules, and environmental variability in an artisanal fishery. *Proceedings of 33rd International System Dynamics Conference*, Boston.
*Plenary talk.
11. Saxena A, **B Güneralp**, R Bailis, C Oliver and G Yohe. 2015. Modeling livelihood strategies of local communities in Central India. *Proceedings of 33th International System Dynamics Conference*, Boston.
10. Duer-Balkind M*, K Jacobs, **B Güneralp**, and X Basurto. 2011. Resilience, environmental variability, and institutions in a multi-species artisanal fishery. *Proceedings of 29th International System Dynamics Conference*, Washington, DC.
9. **Güneralp B.** 2009. An operational framework for seeing and simulating feedbacks in land change science. *Proceedings of 27th International System Dynamics Conference*. Albuquerque, NM.
8. Phaff HWG, JH Slinger, **B Güneralp**, and CE van Daalen. 2006. Investigating Model Behavioural Analysis: A Critical Examination of Two Methods. *Proceedings of 24th International System Dynamics Conference*. Nijmegen, the Netherlands.
*Dana Meadows Award Student Paper Honorable Mention.
7. **Güneralp B.** 2005. Towards Coherent Loop Dominance Analysis: Progress in Eigenvalue Elasticity Analysis. *Proceedings of 23th International System Dynamics Conference*. Boston, MA.
*Dana Meadows Award Student Paper Honorable Mention.
6. **Güneralp B**, G Gertner, and A Anderson. 2005. Incorporating possibilistic and probabilistic uncertainty in decision-making: effects on the precision of results. *Proceeding for Conference on Sustainable Forestry in Theory and Practice: Recent Advances in Inventory and Monitoring, Statistics and Modelling, Information and Knowledge Management and Policy Science*. Edinburgh, Scotland.
5. **Güneralp B.** 2004. A Principle on Structure-Behavior Relations in System Dynamics Models. *Proceedings of 22th International System Dynamics Conference*. Oxford, England.
4. **Güneralp B.** 2002. Spatio-temporal Dynamic Simulation Modeling of the Effects of Land Use Change on Avian Species. *Proceedings of 20th International System Dynamics Conference*. Palermo, Italy.

3. **Güneralp B** and Y Barlas. 2001. Modelling of a Wetland for Sustainable Management: Uluabat Lake. *Proceedings of 19th International System Dynamics Conference*. Atlanta GA.
2. **Güneralp B** and Y Barlas. 1999. Modelling of a Wetland through Sustainable Development. *Proceedings of 17th International System Dynamics Conference*. Wellington, New Zealand.
1. Pala Ö, **B Güneralp**, and O Mergen. 1997. Modelling of Dynamics of the AIDS Epidemic in Southeast Asia. *Proceedings of 15th International System Dynamics Conference*. İstanbul, Turkey.

CONFERENCE ABSTRACTS (*Advisee)

44. Mezei L*, **B Güneralp**. 2021. North American coastal mitigation plans in the hazards literature: institutional capacity, stakeholder impacts, and resettlement. *2021 Annual Meeting of the American Association of Geographers* (Virtual poster presentation).
43. Filippi AM, M You, İ Güneralp, **B Güneralp**. 2021. A new directional land-change analysis method. *2021 Annual Meeting of the American Association of Geographers* (Virtual poster presentation).
42. Ma A, AM Filippi, **B Güneralp**. 2021. Hyperspectral image classification using fast sequential feature extraction and recurrent neural networks. *2021 Annual Meeting of the American Association of Geographers* (Virtual oral presentation).
41. Ma A, AM Filippi, Z Wang, Z Yin, D Huo, X Li, **B Güneralp**. 2020. A novel sequential feature-extraction approach for hyperspectral image classification using a recurrent neural network. *American Geophysical Union (AGU) Fall Meeting 2020, 1-17 Dec. 2020* (Virtual Poster Presentation).
40. Mezei L*, CC Lee, **B Güneralp**, N Gharaibeh. 2020. A systems-oriented post-event assessment of community resilience. *President's Excellence Fund Symposium, T3: Texas A&M Triads for Transformation, Round Two, 28 September, 2020, Texas A&M University, College Station, TX, USA* (Virtual Poster Presentation).
39. Filippi AM, A Ma, Z Wang, İ Güneralp, **B Güneralp**, Z Jiang. 2020. Uncovering effects of fallen trees on flooding and carbon estimation in hurricane-impacted landscapes with deep learning. *Microsoft AI for Earth Fall Digital Summit 2020, 17-19 November 2020* (Virtual Oral Presentation).
38. **Güneralp B**, K de Gennaro. 2019. A System-oriented Post-Event Assessment of Community Resilience. *Coastal Bend Hurricane Conference*. Robstown, TX.
37. **Güneralp B**, M Reba, B Hales, E Wentz, KC Seto. 2019. A Synthesis of Four Decades of Global Urban Expansion: 1970-2010. *Annual Meeting of the American Association of Geographers (AAG)*. Washington, DC.
36. **Güneralp B**, KC Seto, E Wentz. 2018. A Synthesis of Four Decades of Global Urban Expansion: 1970-2010. *American Geophysical Union (AGU) Fall Meeting*. Washington, DC.
35. **Güneralp B**. 2018. Balancing Urban Growth and Ecological Conservation: A Challenge for Planning and Governance. *Annual Meeting of the American Association of Geographers (AAG)*. New Orleans, LA.
34. Xu X*, **B Güneralp**. 2018. Potential Impacts of the Urban Expansion on the Forest and Coastal Habitats in İstanbul, Turkey. *Annual Meeting of the American Association of Geographers (AAG)*. New Orleans, LA.

33. Güneralp İ, S Weyand, **B Güneralp**. 2018. Sociohydrology: Where are we five years later? *Annual Meeting of the American Association of Geographers (AAG)*. New Orleans, LA.
32. Yi H*, U Kreuter, **B Güneralp**, D Han. 2018. Urban greenness and socio-environmental conditions in Bexar County, Texas, USA. *Annual Meeting of the American Association of Geographers (AAG)*. New Orleans, LA.
31. **Güneralp B**, AS Perlstein, KC Seto. 2016. Balancing urban growth and ecological conservation: a challenge for planning and governance in China. *Urban Transitions Global Summit 2016*. 5-9 September 2016. Shanghai, China.
30. Filippi, AM, L Tarpley, **B Güneralp**, E Guenther*. 2016. Hyperspectral remote-sensing estimation of corn leaf water content. *American Society for Photogrammetry & Remote Sensing (ASPRS) 2016 Annual Conference/IGTF 2016 - Imaging & Geospatial Technology Forum 2016*, 11-15 April 2016, Fort Worth, TX.
29. Guenther E*, AM Filippi, L Tarpley, **B Güneralp**. 2016. Quantitative characterization of within-leaf spatial variability of narrow-band vegetation index values for rice leaves. *American Society for Photogrammetry & Remote Sensing (ASPRS) 2016 Annual Conference/IGTF 2016 - Imaging & Geospatial Technology Forum 2016*, 11-15 April 2016, Fort Worth, TX.
28. Guenther E*, AM Filippi, L Tarpley, and **B Güneralp**. 2016. Quantitative characterization of within-leaf spatial variability of narrow-band vegetation index values for rice leaves. *Student Research Week (SRW) 2016*, Texas A&M University, 28 March-1 April 2016, College Station, TX.
27. Castillo CR, İ Güneralp, B Hales, and **B Güneralp**. 2016. Spatial variability in hydrologic connectivity between a coastal river and its floodplain. Texas Bays and Estuaries Meeting, University of Texas – Marine Science Institute, 13 Apr., Port Aransas, TX.
26. Castillo CR, İ Güneralp, B Hales, and **B Güneralp**. 2016. Spatial variability in hydrologic connectivity between a coastal river and its floodplain. Ecological Integration Symposium, Texas A&M University, 1 Apr., College Station, TX.
25. Castillo CR, İ Güneralp, B Hales, and **B Güneralp**. 2016. Spatial variability in hydrologic connectivity between a coastal river and its floodplain. Texas A&M Student Research Week, 29 Mar., College Station, TX.
24. Castillo CR, İ Güneralp, B Hales, and **B Güneralp**. 2016. Spatial variability in hydrologic connectivity between a coastal river and its floodplain. Meeting of the Texas A&M University College of Geosciences Review Board, College Station, TX.
23. Yi H*, **B Güneralp**, AM Filippi, İ Güneralp. 2016. Effects of land change on carbon sequestration, sediment retention, and biodiversity in the San Antonio River Basin, Texas, 1984-2010. *Annual Meeting of the Association of American Geographers (AAG)*. San Francisco, CA.
22. **Güneralp B**, İ Güneralp, and Y Liu. 2016. Changing global patterns of urban exposure to flood and drought hazards. *Annual Meeting of the Association of American Geographers (AAG)*. San Francisco, CA.
21. Yi H*, **B Güneralp**, AM Filippi, İ Güneralp. 2015. Spatiotemporal patterns of urbanization and their impacts on ecosystem services in San Antonio River Basin, Texas. *Annual Meeting of the Association of American Geographers (AAG)*. Chicago, IL.

20. Castillo CR, İ Güneralp, B Hales, **B Güneralp**. 2015. Spatial variability in hydrologic connectivity between a coastal river and its floodplain. *Annual Meeting of the Association of American Geographers (AAG)*. Chicago, IL.
19. Muis S, **B Güneralp**, B Jongman, J Aerts, and P Ward. 2015. Flood risk and adaptation strategies in Indonesia: a probabilistic analysis using globally available data. *European Geosciences Union (EGU) General Assembly*. Vienna, Austria.
18. **Güneralp B**, İ Güneralp, and Y Liu. 2014. Changing global patterns of urban exposure to flood and drought hazards. *2nd International Conference on Urbanization and Global Environmental Change*. Taipei, Taiwan.
17. **Güneralp B**, KC Seto. 2014. Futures of global urban expansion: Uncertainties and implications for biodiversity conservation. *2nd International Conference on Urbanization and Global Environmental Change*. Taipei, Taiwan.
16. **Güneralp B**, KC Seto, and M Ramachandran. 2014. Four manifestations of urban land teleconnections. *2nd International Conference on Urbanization and Global Environmental Change*. Taipei, Taiwan.
15. Muis S, **B Güneralp**, B Jongman, and P Ward. 2014. Future trends in flood risk in Indonesia - A probabilistic approach. *European Geosciences Union (EGU) General Assembly*. Vienna, Austria.
14. Castillo CR, İ Güneralp, **B Güneralp**. 2014. How do changes in developed land and precipitation influence hydrology of a coastal Texas watershed? *Texas Bays and Estuaries Meeting*, Port Aransas, TX.
13. Castillo CR, İ Güneralp, **B Güneralp**. 2014. How do changes in developed land and precipitation influence hydrology of a coastal Texas watershed? *Association of American Geographers (AAG) Annual Meeting*. Tampa, FL.
12. Yi H*, **B Güneralp**, AM Filippi. 2014. Land-use/land-cover change in San Antonio River Basin, TX. *Association of American Geographers (AAG) Annual Meeting*. Tampa, FL
11. Liu Y, B Hales, **B Güneralp**, and İ Güneralp. 2013. Forecasts of urban expansion in river basins across the world and in mega-deltas of Asia and Africa. *American Geophysical Union (AGU) Fall Meeting*. San Francisco, CA.
10. **Güneralp B** and KC Seto. 2013. Probabilistic forecasts of global urban expansion for 2030 and implications for biodiversity. *Association of American Geographers (AAG) Annual Meeting*. Los Angeles, CA.
9. **Güneralp B** and KC Seto. 2011. Probabilistic forecast of global urban expansion for 2030. *American Geophysical Union (AGU) Fall Meeting*. San Francisco, CA.
8. **Güneralp B**, MK Reilly, and KC Seto. 2010. Modeling feedbacks across scales in urban land change. *Association of American Geographers (AAG) Annual Meeting*. Washington, DC.
7. **Güneralp B** and KC Seto. 2010. Land and resource use efficiency for the built-up environment. *1st International Conference on Urbanization and Global Environmental Change*. Tempe, AZ.
6. Fragkias M, **B Güneralp**, M Reilly, and KC Seto. 2009. Global urban land-use change: a meta-analysis of trends and projections. *Association of American Geographers (AAG) Annual Meeting*. Las Vegas, NV.

5. Reilly MK, **B Güneralp**, and KC Seto. 2009. An Operational Framework for Capturing Feedback Dynamics Across and Among Scales in Urban Land Change Science. *Association of American Geographers (AAG) Annual Meeting*. Las Vegas, NV.
4. **Güneralp B** and KC Seto. 2008. An integrated dynamic perspective towards environmental impacts of urban growth in China. *Association of American Geographers (AAG) Annual Meeting*. Boston, MA.
3. **Güneralp B**, G Gertner and A Anderson. 2005. Incorporating possibilistic and probabilistic uncertainty in decision-making: effects on the precision of results. *Proceeding for Conference on Sustainable Forestry in Theory and Practice: Recent Advances in Inventory and Monitoring, Statistics and Modelling, Information and Knowledge Management and Policy Science*. Edinburgh, Scotland.
2. **Güneralp B**. 2003. Structural Analysis of System Dynamics Models in the Face of Parameter Uncertainty. *Proceedings of EURO/INFORMS Joint International Meeting*, pp. 292. İstanbul, Turkey (Invited).
1. **Güneralp B**, G Mendoza, G Gertner, and A Anderson. 2003. Spatial simulation and fuzzy threshold analyses for allocating restoration areas. *Proceedings of EURO/INFORMS Joint International Meeting*, pp. 292. İstanbul, Turkey.

INVITED TALKS

- 2021 Beijing Normal University, 4th International Workshop on the Human Earth System Dynamics and Modelling
"Infrastructure Development with(out) Ecological Conservation"
- 2020 İstanbul Bilgi University, Graduate Programs in Architecture
"Infrastructure Development with(out) Ecological Conservation: the Northern Forests in İstanbul"
- 2018 Texas A&M University, Center for Geospatial Sciences, Applications and Technology (GEOSAT)
"Balancing Urban Growth and Ecological Conservation: A Geographical Perspective"
- 2017 Texas A&M University, Department of Wildlife and Fisheries Sciences, Applied Biodiversity Program
"Balancing Urban Growth and Ecological Conservation: A Challenge for Planning and Governance"
- 2016 Texas A&M University, Department of Geography
"Urbanization and Environmental Change: from the Local to Global"
- 2015 Leeds University, Sustainability Research Institute
"Urbanization and Global Environmental Change"
- 2014 Kansas State University, Department of Geography
"Urbanization and Environmental Change: from the Local to Global"
- 2014 University of Oklahoma, Department of Geography
"Urbanization in the Context of Global Change: Socio-Economic and Environmental Impacts"
- 2013 Chinese Academy of Sciences, Institute of Geographic Sciences and Natural Resources Research
"Probabilistic Forecasts of Global Urban Expansion for 2030: Implications for Biodiversity"

- 2013 Hunter College, Workshop on Global Spatial Population Projections: What Can Be Done Now?
"Probabilistic Forecasts of Global Urban Expansion for 2030"
- 2013 Texas A&M University, Applied Biodiversity Program and Department of Geography
"Urban Transformation of the World and Its Environmental Impacts"
- 2008 Texas A&M University, Department of Geography
"Urbanization as a Transformational Process: Socio-economic and Environmental Dynamics"
- 2005 MIT, Sloan School of Management, MIT-UAlbany System Dynamics PhD Research Colloquium
"Uncovering Structure-Behavior Relations in Complex Nonlinear Models and beyond"
- 2003 MIT, Sloan School of Management, MIT-UAlbany System Dynamics PhD Research Colloquium
"Structural Analysis of System Dynamics Models in the Face of Parameter Uncertainty"
- 2000 University of Illinois at Urbana-Champaign, Dynamic Modeling Interest Group
"Dynamic Modeling Study of Uluabat Lake for Ecological and Economic Sustainability"

PROPOSALS, IN REVIEW

- \$344,695 *Geospatial and Institutional Analysis for Water Security in El Paso-Ciudad Juárez Transborder Conurbation*
NSF HEGS, 2022–2025.
PI: **Güneralp B**
Co-PI: Sansom, L
- \$75,000 *Impact of Flood Risk and Adaptation Approaches on Future Property Values in Houston*
Lincoln Institute of Land Policy, 2022–2022.
PI: Xinyue Y
Co-PI: **Güneralp B**, Oliveira F
- \$5,000,000 *Focused CoPe: Re-Imaging Future Resilient Coupled Human-Coastal Vital Infrastructure Experiencing Chronically Disrupted Environments*
NSF Coastlines and People (CoPe), 2022–2028.
PI: Güneralp İ
Co-PI: Birgisson B, Korty R, Vedlitz A, Casellas Connors I
Senior Personnel: **Güneralp B**, Filippi A, Rifai H

PROPOSALS, AWARDED

- \$30,000 *Impacts of Road Development on Biodiversity*
TAMU Triads for Transformation (T3) Grant, 2021–2022.
PI: **Güneralp B**
Co-PIs: Fitzgerald L, Stronza A
- \$153,478 *Impacts of COVID-19 Pandemic on Forest Resource Use by Rural Communities in India*
Swedish University of Agricultural Sciences, FORMAS Program 2020–2021.
PI: Filippi AM
Co-PIs: Fischer H, Fleischman F, Gupta D, **Güneralp B**, Ramprasad V, Rodriguez-Solorzano C

- \$15,000 *Uncovering effects of fallen trees on flooding and carbon estimation in hurricane-impacted landscapes with deep learning*
Microsoft AI for Earth Grant, 2020–2021.
PI: Filippi AM
Co-PIs: **Güneralp B**, Güneralp İ, Wang Z
- \$30,000 *A Systems-Oriented Post-Event Assessment of Community Resilience*
TAMU Triads for Transformation (T3) Grant, 2019–2021.
PI: **Güneralp B**
Co-PIs: Berke PR, Gharaibeh NG
- \$24,000 *Food-Energy-Water Security in a Transborder Urban Context (Type I Award)*
TAMU-CONACyT Program, 2018–2019.
PI: **Güneralp B**
Co-PIs: Delgado GC, Romero-Lankao P
- \$14,999 *Rapid - Community Resilience Collaborative: A Systems-Oriented Post-Event Assessment of Community Resilience*
NOAA-National Sea Grant Program, 2018.
PI: **Güneralp B**, Wade H
Co-Is: de Gennaro K
- \$749,999 *Impacts of Artificial Afforestation on the Provision of Ecosystem Services to Rural Communities in India*
NASA-LCLUC (Land-Cover/Land-Use Change) Program, 2017–2020.
PI: Fleischman F
Institutional PIs: **Güneralp B**, Coleman E
Co-Is: Chhatre A, Filippi AM, Fischer H, Kreuter U, Rana P, Rodriguez Solorzano C
- \$779,991 *Synthesis of LCLUC studies on Urbanization: State of the Art, Gaps in Knowledge, and New Directions for Remote Sensing Science*
NASA-LCLUC (Land-Cover/Land-Use Change) Program, 2015–2018.
PI: Seto KC
Co-Is: **Güneralp B**, Wentz EA
- \$1,200 *Costs of Saving Habitats from Future Urban Expansion*
The Nature Conservancy, 2016.
PI: **Güneralp B**
- \$765,990 *Understanding Impacts of Desert Urbanization on Climate and Surrounding Environments to Foster Sustainable Cities Using Remote Sensing and Numerical Modeling*
NASA-LCLUC (Land-Cover/Land-Use Change) Program, 2014–2015.
PI: Myint S
Institutional PI: Seto KC
Co-Is: Huang H-P, Middel A
Sub-contractor: **Güneralp B** (\$25,000)

\$16,600 *Land-Use Land-Cover Change Analysis and Hydrological Modeling in Yaque del Norte, Nizao, Ozama and Haina Basins (the Dominican Republic)*, The Nature Conservancy and Riverside Technology, Inc, 2013
 PI: **Güneralp B**

APPEARANCES IN MEDIA & POPULAR PRESS

Research was highlighted in "In 40 years, cities ate up a surprising amount of rural space" published in [Futurity](#), March 24, 2020.

Research was highlighted in "Tegen 2030 Zullen Er Maar Liefst Twee Miljard Mensen Meer Dan Nu in Een Stad Wonen"

By Vivian Lammerse, published in [Scientias.nl](#), February 17, 2020.

Research was highlighted in "2B more people will likely live in cities by 2030" published in [Futurity](#), February 5, 2020.

Research was highlighted in "Density is the best way to reduce a city's carbon footprint"

By Adele Peters, published in [Co.Design](#), February 7, 2017.

Research was highlighted in "Want to reduce the energy used by buildings? Make cities denser"

By David Roberts, published in [Vox](#), January 26, 2017.

Research was highlighted in "Growing mega-cities will displace vast tracts of farmland by 2030"

By Emma Bryce, published in [the Guardian](#), December 27, 2016.

Research was highlighted in "No one is ready for the next Katrina"

By: Nick Stockton, published in [Wired](#), August 27, 2015.

Interviewed and had research described in segment on Brigham Young University (BYU) Radio program "Top of Mind with Julie Rose".

Interviewed by Julie Rose, March 25, 2015.

Research was highlighted in "Population increases flood and drought threat to cities"

By: Tim Radford, published in [the Climate News Network](#), March 11, 2015.

Research was highlighted in "Texas A&M University-led global infrastructure study warns of future coastal flooding"

By: Sam Peshek, published in [the Eagle](#), March 5, 2015.

Research was highlighted in "Urban land set to encroach on protected areas"

By: Lucas Laursen, published in [the environmentalresearchweb](#), April 19, 2013.

Research was highlighted in "How cities around the world will sprawl in the next 20 years"

By Brad Plumer, published in [the Washington Post](#), September 19, 2012

Research was highlighted in "Where urban land growth is about to explode"

By: Nate Berg, published in [the Atlantic - Cities](#), September 19, 2012.

Research was highlighted in "How future urban sprawl maps out"

By: Lucas Laursen, published in Nature News & Comment, September 18, 2012.

Research was highlighted in "Urban planet: how growing cities will wreck the environment unless we build them right"

By: Bryan Walsh, published in Time, September 18, 2012.

Research was highlighted in "What drives cities' runaway growth?"

By: Felicity Barringer, published in the New York Times, August 22, 2011.

TEACHING

Courses

Department of Geography, Texas A&M University

Spring 2022	GEOG476W	GIS Practicum (undergraduate level, 14 students)
	GEOG616	Urban Geography (graduate level, 8 students)
	GEOG491	Research (undergraduate level, 1 student)
	GEOG681	Seminar (7 graduate students) —Coordinator
	GEOG691	Research (4 graduate students)
Fall 2021	GEOG306	Introduction to Urban Geography (undergraduate level, 43 students)
	GEOG491	Research (undergraduate level, 1 student)
	GEOG681	Seminar (20 graduate students) —Coordinator
	GEOG685	Directed Studies (2 graduate students)
	GEOG691	Research (4 graduate students)
Spring 2021	GEOG306	Introduction to Urban Geography (undergraduate level, 50 students)
	GEOG476W	GIS Practicum (undergraduate level, 15 students)
	GEOG485	Directed Studies (1 undergraduate student)
	GEOG691	Research (4 graduate students)
Fall 2020	GEOG685	Directed Studies (3 graduate students)
	GEOG691	Research (2 graduate students)
Spring 2020	GEOG616	Urban Geography (graduate level, 8 students)
	GEOG685	Directed Studies: Urban Land-Change and Large-Scale Transportation Infrastructure Development (1 graduate student)
Fall 2019	GEOG306	Introduction to Urban Geography (undergraduate level, 67 students)
	GEOG476W	GIS Practicum (undergraduate level, 21 students)
	GEOG685	Directed Studies: Land-Change Modeling (1 graduate student)
	GEOG485	Directed Studies: Urban Land Change (1 undergraduate student)
Spring 2019	GEOG380W	Workshop in Environmental Studies (undergraduate level, 21 students)
	GEOG476W	GIS Practicum (undergraduate level, 19 students)
	GEOG491	Undergraduate Research: (2 undergraduate students)
	GEOG685	Directed Studies: Land-Change Analysis and Modeling (1 graduate student)
	GEOG691	Research (1 graduate student)
Fall 2018	GEOG306	Introduction to Urban Geography (undergraduate level, 68 students)
	GEOG380W	Workshop in Environmental Studies (undergraduate level, 21 students)
	GEOG691	Research: Patterns of Land Change in İstanbul (1 graduate student)

Spring 2018	GEOG306	Introduction to Urban Geography (undergraduate level, 56 students)
	GEOG476W	GIS Practicum (undergraduate level, 18 students)
	GEOG685	Directed Studies: Urban Remote Sensing (2 graduate students)
	GEOG691	Research: Land Change Impacts in İstanbul (1 graduate student)
Fall 2017	GEOG306	Introduction to Urban Geography (undergraduate level, 60 students)
	GEOG685	Directed Studies: Land-Change Analysis&Modeling (1 graduate student)
Spring 2016	GEOG491	Research: Synthesis of Urban Land-Change Case Studies
Fall 2015	GEOG380	Workshop in Environmental Studies (undergraduate level, 18 students)
	GEOG491	Research: Synthesis of Urban Land-Change/Land-Use Change Data Products and Case Studies
Summer 2015	GEOG491	Research: A Meta-analysis of Urban Expansion around the World
Spring 2015	GEOG691	Research: Landscape Analysis and Its Applications
Spring 2015	GEOG685	Directed Studies: Land-Change Analysis and Modeling
Spring 2012	GEOG360W	Natural Hazards, <i>writing intensive</i> (undergraduate level, 23 students)
Fall 2012	GEOG491	<i>Undergraduate Research</i> : A survey of urban expansion across the world
Fall 2012	GEOG491	<i>Undergraduate Research</i> : Urbanization and its impacts on fluvial systems;

School of Forestry and Environmental Studies, Yale University

Fall 2009	FES 77016	Systems Modeling of the Environment (graduate level, 23 students)
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Department of Natural Resources and Environmental Sciences, University of Illinois at Urbana-Champaign

Spring (2005, 2006)	NRES 421	Quantitative Methods in NRES
Fall (2003–2006)	GEOG 481	Earth Systems Modeling

Department of Industrial Engineering, Boğaziçi University*

Fall 1999	IE 550	Dynamics of Socio-Economic Systems
Fall 1999	IE 441	Planning for Engineers
Spring 1999	IE 602	Dynamic Systems Modeling and Analysis
Fall 1998	IE 505	Stochastic Processes and Applications
Fall 1997	IE 306	Systems Simulation

* all courses in English; served as teaching assistant

Advising and Mentoring (Texas A&M University unless otherwise noted)

In progress

Chair, Cui W, PhD, *Geography*.

Chair, Lin W, PhD, *Geography*.

Chair, Ahasan, R, PhD, *Geography*.

Chair, Mezei, L, PhD, *Geography*.

Chair, Chaudhuri, A, PhD, *Geography*.

Chair, Sellers, S, MS, *Geography*.

Committee member, Safayet M, PhD, *Geography*.

Committee member, Lawrence B, PhD, *Geography*.

Committee member, Powell M, MS, *Geography*.

Committee member, Lee C-C, PhD, *Civil and Environmental Engineering*.

Committee member, Sampeck K, PhD, *Ecology and Evolutionary Biology*.

Graduated

Chair, Mezei, L, MS, *Geography* (Graduated in May 2021).

Chair, Xu X, MS, *Geography* (Graduated in May 2019).

Chair, Duer-Balkind M, MEM, *School of Forestry and Environmental Studies, Yale University* (Graduated in Feb 2011).

Co-chair, Yi H, PhD, *Geography* (Graduated, May 2017).

Co-chair, Huang X, PhD, *Landscape Architecture and Urban Planning* (Graduated, Jun 2014).

Co-chair, Guenther E, MS, *Geography* (Graduated in Aug 2017).

Committee member, Ma A, PhD, *Geography* (Graduated, Dec 2021).

Committee member, Park J, PhD, *Geography* (Graduated, Dec 2021).

Committee member, Castillo CR, PhD, *Geography* (Graduated, May 2020).

Committee member, Lu D, MS, *Geography* (Graduated, Dec 2019).

Committee member, Kim YJ, PhD, *Landscape Architecture & Urban Planning* (Graduated, May 2019).

Committee member, Liu Y, PhD, *Water Management & Hydrological Science* (Graduated, Aug 2016).

Committee member, Chamarro A, PhD, *Geology* (Graduated, May 2016).

Committee member, Saxena A, PhD, *School of Forestry and Environmental Studies, Yale University* (Graduated, Nov 2014).

Committee member, Weyand S, MS, *Water Management & Hydrological Science* (Graduated, Dec 2017).

Committee member, Castillo CR, MS, *Water Management & Hydrological Science* (Graduated, Aug 2013).

Committee member, Zahra QA, MS, *Landscape Architecture & Urban Planning* (Graduated, May 2017).

Committee member, Beck A, MS, *Landscape Architecture & Urban Planning* (Graduated, Nov 2016).

Committee member, Hall T, MS (NTO), *Geography* (Graduated, May 2014).

Faculty Advisor, Wolfe AL, Undergraduate Research Scholar, *Geography* (Graduated, May 2016).

Other Teaching-Related Activities

Implementation of World Climate Exercise, in GEOG380 (TAMU) and FES 77016 (Yale).

(<https://www.climateinteractive.org/tools/world-climate/>)

Supervising and mentoring PhD student and TA, Li Jiang, in 2009, on systems analysis and modeling and preparation of course materials.

Supervising and mentoring PhD students, Peter Christensen and Li Jiang and MS students, Tian Ming and Jacob Munger, in 2008-2009, on urbanization, remote sensing, land change analysis and research methods.

SERVICE**Departmental/University Committees**

2019-present *Member*, Departmental Colloquium Organization Committee

2017-present *Faculty sponsor*, International Geography Honor Society, Gamma Theta Upsilon (GTU)

2019-present *Member*, TAMU Applied Biodiversity Science (ABS) Steering Committee

2017-2019 *Member*, Geosciences College Space Committee

2014 *Member*, Fulbright Fellowship Campus Committee

International Scientific Committees

- 2019–present *Contributing Author*, Intergovernmental Panel on Climate Change (IPCC), Sixth Assessment Report, Working Group III, Chapter 8: Urban Systems and Other Settlements.
- 2016–2019 *Contributing Author*, Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Global Assessment of Biodiversity and Ecosystem Services, Chapter 4: Plausible futures of nature, its contributions to people and their good quality of life.
- 2013–2014 *Contributing Author*, Intergovernmental Panel on Climate Change (IPCC), Fifth Assessment Report, Working Group III, Chapter 12: Human Settlements, Infrastructure and Spatial Planning.
- 2011–2013 *Coordinating Lead Author and Editorial Team*, United Nations Convention on Biological Diversity (CBO) and Stockholm Resilience Centre, *Cities and Biodiversity Outlook–Scientific Foundation & Action and Policy*.

Professional Committees

- 2016–present Associate Editor, *System Dynamics Review*
- 2015–present Assistant Vice President – Membership, System Dynamics Society
- 2014–present Member, World Commission on Protected Areas
- 2015–2017 Project Associate, Urbanization and Global Environmental Change (UGEC), a “Future Earth” Project
- 2013–2017 Board Member, AAG Human Dimensions of Global Change Specialty Group
- 2008–2010 Member, System Dynamics Society Policy Council
- 2005–2006 President, System Dynamics Society Student Chapter
- 2000 Co-founder, System Dynamics Society Student Chapter

Other Scholarly Service

- 2021 *Session Co-convener*, “Urban areas and global change”, American Geophysical Union (AGU), New Orleans, USA.
- 2020 *Session Co-convener*, “Urban areas and global change”, American Geophysical Union (AGU), San Francisco, USA.
- 2019 *Session Co-convener*, “Urban areas and global change”, American Geophysical Union (AGU), San Francisco, USA.
- 2019 *Symposium Co-organizer*, “Land systems science”, *Annual Meeting of the American Association of Geographers (AAG)*. Washington, DC.
- 2017 *Symposium Co-organizer*, “Land systems science”, *Annual Meeting of the American Association of Geographers (AAG)*. Boston, MA.
- 2016 *Session Co-convener*, “Applying the ecosystem services concept to urban land systems”, Global Land Project 3rd Open Science Meeting, Beijing, China.
- 2015 *Symposium Co-organizer*, “Land systems science”, *Annual Meeting of the American Association of Geographers (AAG)*. Chicago, IL.
- 2014 *Session Organizer*, “Urbanization, biodiversity, and ecosystem services”, 2nd Urbanization and Global Environmental Change (UGEC) Conference, Taipei, Taiwan.

- 2014 *Session Organizer*, “Urban land teleconnections: from concept to implementation”, 2nd Urbanization and Global Environmental Change (UGEC) Conference, Taipei, Taiwan.
- 2010 *Session Organizer*, Oral Presentation Session, “Modeling Dynamic Urban-Environmental Interactions”, 1st Urbanization and Global Environmental Change (UGEC) Conference, Tempe AZ, USA.
- 2004 *Organizer*, 5th PhD Colloquium, 22th International System Dynamics Conference, Oxford, UK.
- 1997 *Organization Team*, 15th International System Dynamics Conference, İstanbul, Turkey.

Panel Member

National Science Foundation (NSF) Long-Term Ecological Research (LTER) Renewal Proposal Advisory Panel 11-13 May 2016

Proposal Reviewer

University of Wisconsin-Milwaukee Research Growth Initiative, 2019
 National Science Foundation (NSF) Geography and Spatial Sciences (GSS), 2018
 Netherlands Organisation for Scientific Research (NWO), 2018
 Research Councils UK (RCUK) Natural Environment Research Council (NERC), 2016
 European Research Council (ERC), 2016
 European Science Foundation (ESF), 2016

Journal Reviews

Ambio	Journal of Environmental Management
Applied Geography	Journal of Geophysical Research
Biological Conservation	Journal of Land Use Science
Climate Policy	Journal of Physics: Complexity
Complexity	Landscape and Urban Planning
Current Opinion in Environmental Sustainability	Mountain Research and Development
Earth's Future	Nature Ecology and Evolution
Ecological Engineering	Nature Geoscience
Ecological Modelling	Nature Sustainability
Ecology	Nature Urban Sustainability
Ecology and Society	Physical Geography
Energies	Professional Geographer
Environmental Conservation	Science
Environmental Hazards	Science of the Total Environment
Environmental Modeling and Software	Scientific Reports
Environmental Research Letters	Simulation & Gaming
Environmental Studies and Sciences	Sustainability
Forest Science	Sustainability Science
Global Environmental Change	System Dynamics Review
Habitat International	Urban Geography
Journal of Applied Ecology	WIREs Climate Change

AWARDS and HONORS

- 2021 Sigma Xi, Full Membership
2019 Highly Cited Researcher, Web of Science Group
2012 Chinese Academy of Sciences Fellowship for Young International Scientists
2006, 2005 Honorable Mention, Dana Meadows Student Paper Award
 System Dynamics Society
2003 Honorary Prize, Robert Bohrer Workshop for Student Papers in Statistics
 University of Illinois at Urbana-Champaign
2001 Graduate Fellowship, O'Dell Grant in Soil Science
 University of Illinois at Urbana-Champaign

PROFESSIONAL AFFILIATIONS

- American Association for the Advancement of Science Ecological Society of America
American Geophysical Union International Union for Conservation of Nature
American Association of Geographers System Dynamics Society