

Name: Gregory A. Kiker, 2014 SE 30th Place, Gainesville, FL 32641, Cell: (352) 281-1195

Academic rank: Professor, Full-time, Department of Agricultural & Biological Engineering, University of Florida.

Degrees: B.S. Agricultural Engineering, University of Florida, 1989
M.E. Agricultural Engineering, University of Florida, 1992
Ph.D. Agricultural & Biological Engineering, Cornell University, 1998

Years on UF faculty: 20 years (Full Prof. 2017; Assoc Prof. & Tenure: 2011; Asst. Prof: 2005)

Other related work experience:

Honorary Associate Professor, University of KwaZulu-Natal, South Africa 2013-2024.

Research Physical Scientist, U.S. Army Engineer Research and Development Center – Environmental Laboratory, Waterways Experiment Station, Vicksburg, MS 2002-2005.

Senior Lecturer, University of KwaZulu-Natal, School of Bioresources Engineering and Environmental Hydrology, South Africa 1996-2002.

Peer Reviewed Journal Articles or Reports: (= Post Doc , * = Graduate Student)**

1. Campbell, C., Gusto, C.** , Kelsey, K., Haase, H.** , Cohen, N., Robertson, K., Kiker, G. and Boz, Z., 2025. Household food waste behaviors of participants in a municipal community compost program. *Journal of Agriculture, Food Systems, and Community Development*, 14(2), pp.1-18.
2. Le Falchier, E.J.* , Campbell, L., Halbritter, D., Wheeler, G.S., Leidi, J., Williams, D., Pandey, M., Kiker, G. and Minter, C.R., 2025. Predicting suitable habitats for the Brazilian peppertree biological control agent *Pseudophilothrips ichini* (Thysanoptera: Phlaeothripidae) in Florida. *Biocontrol Science and Technology*, pp.1-18. (in review).
3. Horton, R.* , Trump, B.D., Trump, J., Knowles, H.S., Linkov, I., Jones, P. and Kiker, G., 2025. Performance metrics for resilience of airport infrastructure. *Transportation Research Part D: Transport and Environment*, p.104676.
4. Kiiza, D.* , Denagamage, T., Kiker, G., Maunsell, F., Serra, R., Harris-Coble, L.N., Benavides, B. and Hernandez, J.A., 2024. Seroprevalence of Brucellosis in Livestock and Farmers' Choice of Milk Marketing Channels in Rwamagana District, Rwanda. *The American journal of tropical medicine and hygiene*, p.tpm240410.
5. Vaiknoras, K., Kiker, G., Nkonya, E. M., Morgan, S., Beckman, J., Johnson, M. E., & Ivanic, M. 2024. *The effect of climate change on herbaceous biomass and implications for global cattle production* (Report No. ERR-339). U.S. Department of Agriculture, Economic Research Service. <https://doi.org/10.32747/2024.8633523.ers>
6. Getachew, F. Bayabil, H.K., Hoogenboom, G., Kiker, G.A., Yu, Z. Li, Y. 2023. Development of climate-smart sorghum ideotype for climate resilience in Ethiopia. *Field Crops Research*, v303:109135. ISSN 0378-4290. <https://doi.org/10.1016/j.fcr.2023.109135>.
7. Zhuang, Z.Y., Hocine, A., Kouaissah, N. and Kiker, G.A., 2023. Optimising sustainable renewable energy portfolios using a multi-tolerance fuzzy goal programming approach. *International Journal of Green Energy*, 20(6), pp.640-655.
8. Kiiza, D.* , Denagamage, T., Serra, R., Maunsell, F., Kiker, G., Benavides, B. and Hernandez, J.A., 2023. A systematic review of economic assessments for brucellosis control interventions in livestock populations. *Preventive Veterinary Medicine*, p.105878.
9. Bizimana, J.C., Dershe, M.B., Adie, A. and Kiker, G.A., 2023. Simulated economic and nutritional impacts of irrigated fodder and crossbred cows on farm households in southern Ethiopia. *World Development Perspectives*, 31, p.100517.
10. Horton, R.E. * , Kiker, G.A, Trump, B.D.T and Linkov, I. 2022. International Airports as Agents of Resilience. *Journal of Contingencies and Crisis Management*. <https://doi.org/10.1111/1468-5973.12401>.
11. Lomeu, A., Shukla, A., Shukla, S., Kiker, G., Wu, C.-L., Hendricks, G., Boughton, E. H., Sishodia, R., Guzha, A. C., Swain, H. M., Bohlen P. J., Jenkins, D. G. Fauth, J. E. 2022. Using Biodiversity Response for Prioritizing Participants and Service Provisions in a Payment-for-Water-Storage Program in the Everglades Basin. *Journal of Hydrology* 609, p.127618.
12. Mishkin, M. * and Kiker, G., 2021. Managing with logic: A Bayesian causal network assessment using the

critical list of variables for sustaining the commons in the Monarch Reserve. *Global Ecology and Conservation*, 32, p.e01931.

13. Beal Cohen, A.A.*, Muneepeerakul, R. and Kiker, G., 2021. Intra-group decision-making in agent-based models. *Nature: Scientific Reports*, 11(1), pp.1-11.
14. Zhou, Y., Tingley, M.W., Case, M.F., Coetsee, C., Kiker, G.A., Scholtz, R., Venter, F.J. and Staver, A.C., 2021. Woody encroachment happens via intensification, not extensification, of species ranges in an African savanna. *Ecological Applications*, p.e02437.
15. Medina, M.*, Huffaker, R., Muñoz-Carpena, R. and Kiker, G.A., 2021. An empirical nonlinear dynamics approach to analyzing emergent behavior of agent-based models. *AIP Advances*, 11(3), p.035133.
16. Morgan, V.L.*, McLamore, E.S., Correll, M. and Kiker, G.A., 2021. Emerging mercury mitigation solutions for artisanal small-scale gold mining communities evaluated through a multicriteria decision analysis approach. *Environment Systems and Decisions*, pp.1-12.
17. Morgan, V.L.*, Casso-Hartmann, L., Velez-Torres, I., Vanegas, D.C., Muñoz-Carpena, R., McLamore, E.S. and Kiker, G.A., 2021. Modeling exposure risk and prevention of mercury in drinking water for artisanal-small scale gold mining communities. *Human and Ecological Risk Assessment: An International Journal*, 27(6), pp.1492-1508.
18. Serra, R., Kiker, G.A., Minten, B., Valerio, V.C.*, Varijakshapanicker, P. and Wane, A., 2020. Filling knowledge gaps to strengthen livestock policies in low-income countries. *Global Food Security*, 26, p.100428.
19. Senda T. S.*, Kiker, G.A., Masikati P., Chirima A. and Van Niekerk J. 2020. Modeling Climate Change Impacts on Rangeland Productivity and Livestock Population Dynamics in Nkayi District, Zimbabwe. *Applied Sciences* 10(7), p.2330.
20. Valerio, V.C*., Walther, O.J., Eilittä, M., Cissé, B., Muneepeerakul, R. and Kiker, G.A., 2020. Network analysis of regional livestock trade in West Africa. *PloS one*, 15(5), p.e0232681.
21. Boughton, E.H., Quintana-Ascencio, P.F., Jenkins, D.G., Bohlen, P.J., Fauth, J.E., Engel, A.*, Hendricks, G., Kiker, G.A., Shukla, S. and Swain, H.M. 2019. Relationships among ecosystem services at local and ecosystem spatial scales in a payment-for-water services program on ranchlands in the headwaters of the Everglades. *Ecosphere* 10(5): e02728. 10.1002/ecs2.2728
22. McLamore, E.S., Palit Austin Datta, S., Morgan, V., Cavallaro, N., Kiker, G., Jenkins, D.M., Rong, Y., Gomes, C., Claussen, J., Vanegas, D. and Alocilja, E.C., 2019. SNAPS: Sensor Analytics Point Solutions for Detection and Decision Support Systems. *Sensors*, 19(22), p.4935.
23. Boz, A.*, Welt, B. Brecht, J.K., Pelletier, W. McLamore, E., Kiker, G.A. and Butler, J. 2018. Challenges and Advances in development of Active Components to Modify Headspace Gases in Packaging of Fresh Produce and Muscle Foods. *Journal of Applied Packaging Research* 10(1), p.5.
24. Leitman, S.*, Kiker, G.A. and Wright, D. 2017. Simulating system-wide effects of reducing irrigation withdrawals in a disputed river basin. *River Research & Applications* 1-9.
25. Fullman T.J.*, Bunting, E. L.*, Kiker, G.A. and Southworth, J. 2017. Predicting shifts in large herbivore distributions under climate change and management using a spatially-explicit ecosystem model. *Ecological Modelling* 352, 1-18.
26. Scholtz, R.*, Smit, I. P.J., Coetsee, C., Kiker, G.A. and Venter, F.J. 2017. Legacy effects of top-down disturbances on woody plant species composition in semi-arid systems. *Austral Ecology* 42, 72–83 doi:10.1111/aec.12402.
27. Fullman, T.J.*, Kiker, G.A., Gaylard, A., Southworth, J., Waylen, P., Kerley, G. 2017. Elephants respond to resource trade-offs in an aseasonal system through daily and annual variability in resource selection. *Koedoe* 59(1), 21-pages.
28. Lagerwall, G.*, Kiker, G., Muñoz-Carpena, R., & Wang, N. 2017. Accounting for the Impact of Management Scenarios on *Typha Domingensis* (Cattail) in an Everglades Wetland. *Environmental Management*, 1-12.
29. Bunting, E. L.*, Fullman T.J.*, Kiker, G.A. and Southworth, J. 2016. Utilization of the SAVANNA Model to Analyze Future Patterns of Vegetation Cover in Kruger National Park under Changing Climate. *Ecological Modelling* 342:147–160.
30. Scholtz, R.*, Kiker, G. A., Duckworth, G. D., Scharler, U. M., Mwambi, H. G., & Venter, F. J. 2016. Different drivers create spatial vegetation cover and vertical structure in semi-arid African savannas. *African Journal of Range & Forage Science*, 33(2), 91-100.
31. Leitman, S.*, Pine, W.E. and Kiker, G.A. 2016. Management options during the 2011-2012 drought on the Apalachicola River: A systems dynamic model evaluation. *Environmental Management* (16) 1:15.

(<http://link.springer.com/article/10.1007/s00267-016-0712-4>).

32. Fletcher, P.J.,* Spranger, M., Hendee, J.C. Li, Y., Clark, M. and Kiker, G.A. 2015. Decision Tools for Coral Reef Managers: Using Participatory Decision Support to Integrate Potential Climate Impacts and Informed Decision Making. *Global Ecology and Conservation* 4:491–504.
33. Leitman, S.* and Kiker, G.A. 2015. Development and comparison of integrated river/reservoir models in the Apalachicola–Chattahoochee–Flint basin, USA. *Environment, Systems & Decisions* 35(3): pp 410–423.
34. Hilbers, J.P., van Langevelde, F. Prins, H.H.T., Grant, C.C. Peele, M. Coughenour, M.B. de Knecht, H.J., Slotow, R. Smit, I.P.J., Kiker, G.A. and de Boer, W.F. 2015. Modeling elephant-mediated cascading effects of water point closure. *Ecological Applications* 25:402–415.
35. Linhoss, A. C., Muñoz-Carpena, R., Kiker, G. A., and Wolski, P. 2015. Reducing uncertainty based on model fitness: Application to a reservoir model. *Water SA*, 41(1).
36. Campo-Bescós, M.A.**., Muñoz-Carpena, R., Kiker, G.A., Bodah, B.W., and Ullman, J.L. 2015. Improved watering or buffering? Runoff and sediment pollution control from furrow irrigated fields in arid environments. *Agriculture, Ecosystems and Environment* 205: 90–101.
37. Linhoss, A. **, G. Kiker, R. Watkins, M. Shirley, and K. Frank. 2015. Sea-level rise, inundation, and marsh migration: Simulating impacts on developed lands and environmental systems. *Journal of Coastal Research* 31(1), 36–46. doi: <http://dx.doi.org/10.2112/JCOASTRES-D-13-00215.1>
38. Convertino, M., R. Muñoz-Carpena, Kiker, G.A and Perz, S. 2015. Design of optimal ecosystem monitoring networks: hotspot detection and biodiversity patterns. *Stochastic Environmental Research and Risk Assessment* 29(4):1085–1101. (DOI 10.1007/s00477-014-0999-8).
39. Convertino**, M., R. Muñoz-Carpena, Chu-Agor, M.L.**., G. Kiker and I. Linkov. 2014. Untangling model drivers of species distribution predictions: Global Sensitivity and Uncertainty Analysis of MaxEnt. *Env. Model. & Software*. 51:96–309.
40. Lagerwall, G.,* Kiker, G.A., Muñoz-Carpena, R., and Wang, N. 2014. Global Uncertainty and Sensitivity Analysis of a Spatially Distributed Ecological Model. *Ecological Modelling* 275:22–30.
41. Chu, M.L.**., Guzman, J.A., Muñoz-Carpena, R., Kiker, G.A. and Linkov, I. 2014. A simplified approach for simulating changes in beach habitat due to the combined effects of long-term sea level rise, storm erosion, and nourishment. *Env. Model. & Software* 52: 111–120.
42. Scholtz R.*, Kiker G.A., Smit I.P.J. and Venter F.J. 2014. Identifying drivers that influence the spatial distribution of woody vegetation in Kruger National Park, South Africa. *Ecosphere* 5(6):71. <http://dx.doi.org/10.1890/ES14-00034.1>.
43. Kiker, G.A., Scholtz R.*, Smit I.P.J., and Venter, F.J. 2014. Exploring an extensive dataset to establish woody vegetation cover and composition in Kruger National Park for the late 1980s. *Koedoe* 56(1), Art.#1200, 10 pages. <http://dx.doi.org/10.4102/koedoe.v56i1.1200>
44. Fletcher, P.*, Kelble, C.R., Nuttle, W.K. and Kiker, G.A. 2014. Using the integrated ecosystem assessment process to build consensus and transfer information to managers. *Ecological Indicators* 44:11–25. <http://dx.doi.org/10.1016/j.ecolind.2014.03.024>
45. Burks-Cope, K*. and Kiker, G.A. 2014. Uncovering Lines of Evidence Hidden within Wicked Problems: Using Conceptual Models to Inform Ecosystem-based Management of the Missouri River Cottonwoods. *Environment, Systems & Decisions* 34(3), 425–442. DOI 10.1007/s10669-014-9509-2.
46. Convertino M., Foran, C., Keisler, J.M., Scarlett, L., LoSchiavo, A., Kiker, G.A. and Linkov, I. 2013. Enhanced Adaptive Management: Integrating Decision Analysis, Scenario Analysis and Environmental Modeling for the Everglades. *Nature: Scientific Reports* 3(2922):1–9. (<http://dx.doi.org/10.1038/srep02922>)
47. Wangusi, N.*, Kiker, G.A., Muñoz-Carpena, R. and Henson, W. 2013. Improving watershed decisions using run-off and yield models at different simulation scales. *Environment, Systems & Decisions* 33:440–456.
48. Hendricks, G.*, Shukla, S., Martinez, C.J. and Kiker G.A. 2013. A Modified Model for Simulating Hydrologic Processes for Plastic Mulch Production Systems. *Journal of Irrigation and Drainage Engineering* 139(9), 738–746.
49. Kanapaux, W.* and Kiker, G.A. 2013. Development and testing of an object-oriented model for adaptively managing human disturbance of least tern (*Sternula antillarum*) nesting habitat. *Ecological Modelling* 268:64–77.
50. Perz, S. Muñoz-Carpena, R., Kiker, G.A and Holt R.D. 2013. Evaluating Ecological Resilience with Global Sensitivity and Uncertainty Analysis. *Ecological Modelling* 263:74–186.
51. Linhoss, A.** Kiker, G.A. Aiello-Lammens, M., Chu-Agor**, M.L., Convertino**, M. Muñoz-Carpena,

- R, Fischer, R. and Linkov, I. 2013. Decision analysis for species preservation under sea-level rise. *Ecological Modelling* 263: 264– 272.
52. Linhoss, A. *, Muñoz-Carpena, R., Kiker, G., and Hughes, D. 2013. Hydrologic Modeling, Uncertainty, and Sensitivity in the Okavango Basin: Insights for Scenario Assessment. *Journal of Hydrologic Engineering*, 18(12), 1767–1778.
 53. Pandey, V.,* Kiker, G.A. and Martinez, C.J. 2013. Modeling cattle distribution in southern Florida pasture agro-ecosystems: Implications based on forage, shade, and water availability. *Biological Engineering Transactions* 6(2): 59-81.
 54. Convertino, M. **, Simini, F., Catani, F., Kiker, G.A. 2013. Power-law of Aggregate-size Spectra in Natural Systems. *ICST Transactions* 1(2): 1-21. (<http://www.eudl.eu/doi/10.4108/trans.cs.1.2.e2>)
 55. Johnson, N.T.*, Martinez, C.J., Kiker, G.A. and Leitman, S. 2013. Pacific and Atlantic Ocean influences on streamflow in the Apalachicola-Chattahoochee-Flint river basin. *Journal of Hydrology* 489: 160–179.
 56. Convertino, M. **, Bockelie, A., Kiker, G.A., Muñoz-Carpena, R. and Linkov, I. 2012. Shorebird Patches as Fingerprints of Fractal Coastline Fluctuations due to Climate Change. *Ecological Processes* 2012, 1:9.
 57. Lagerwall, G.,* Kiker, G.A., Muñoz-Carpena, R., Convertino, M., James, A., and Wang, N. 2012. A Spatially Distributed, Deterministic, Approach to Modeling *Typha domingensis* (Cattail) in an Everglades Wetland. *Ecological Processes* 2012, 1:10.
 58. Chu_Agor, M.L. **, Muñoz-Carpena, R., Kiker, G.A., Aiello-Lammens, M., Akçakaya, R., Convertino, M. ** and Linkov, I. 2012. Simulating the fate of Florida Snowy Plovers with sea-level rise: exploring potential population management outcomes with a global uncertainty and sensitivity analysis perspective. *Ecological Modelling* v224(1): 33–47.
 59. Linhoss, A.,* Munoz-Carpena, R., Allen, M., Kiker, G.A. and Mosepele, K. 2012. A flood pulse driven fish population model for the Okavango Delta, Botswana. *Ecological Modelling* 228: 27-38.
 60. Convertino, M. **, R. Muñoz-Carpena, G.A. Kiker, M.L. Chu-Agor, R. Fisher and I. Linkov. 2012. Epistemic Uncertainty in Predicted Species Distributions: Models and Space-Time Gaps of Biogeographical Data. *Ecological Modelling* 240:1– 15.
 61. Mukherjee, A.* Jones, J.W., Cuda, J.P., Kiker, G.A., and Overholt, W.A. 2012. Effect of Simulated Herbivory on Growth of the Invasive Weed *Hygrophila polysperma*: Experimental and Predictive Approaches. *Biological Control* 60(3):271-279.
 62. Convertino, M. **, Kiker, G.A., Munoz-Carpena, R., Chu-Agor, M.L., Fischer, R. and Linkov, I. 2011. Scale- and Resolution- Invariance of Suitable Geographic Range for Shorebird Metapopulations. *Ecological Complexity* v8(4):364–376.
 63. Convertino, M **, Elsnor, J. Munoz-Carpena, R., Kiker, G.A. Martinez, C.J., Fischer, R. and Linkov, I. 2011. Do Tropical Cyclones Shape Shorebird Patterns? Biogeoclimatology of Snowy Plovers in Florida. *PlosOne* 6(1)1-9.
 64. Fitz, H.C., Kiker, G.A. and Kim, J.B. ** 2011. Integrated Ecological Modeling and Decision Analysis within the Everglades Landscape. *Critical Reviews in Environmental Science and Technology* 41(S1):517– 547.
 65. Chu-Agor, M.L. **, R. Muñoz-Carpena, G. Kiker, A. Emanuelsson and I. Linkov. 2011. Exploring sea level rise vulnerability of coastal habitats through global sensitivity and uncertainty analysis. *Env. Model. & Software* 26:593-604.
 66. Convertino, M. **, M.L. Chu-Agor, ** R.A. Fischer, G. Kiker, R. Munoz-Carpena, J.F. Donoghue, I. Linkov. 2011. Anthropogenic Renourishment Feedback on Shorebirds: a Multispecies Bayesian Perspective, *Ecological Engineering* v37(8): 1184-1194.
 67. Carey, R.O.*, Migliaccio, K.W., Li, Y.C., Schaffer, B. Kiker, G.A., and Brown, M. 2011. Land Use Disturbance Indicators and Water Quality Variability in the Biscayne Bay Watershed, Florida. *Ecological Indicators* 11:1093–1104.
 68. Pandey, V.*, Kiker, G.A., Campbell, K.L., Williams, M.J. and Coleman, S.W. 2009. GPS Monitoring of Cattle Location Near Water Features in South Florida. *Applied Engineering in Agriculture* 25(4):551-562.
 69. Martinez, C. J., Campbell, K. L., Annable, M. D. & Kiker, G. A. 2008. An object oriented hydrologic model for humid, shallow water table environments. *Journal of Hydrology*. 351/3-4:368-381.
 70. Kiker, G.A., Muñoz-Carpena, R., Wolski, P., Cathey, A.*, Gaughn, A.* and Kim, J.B. ** 2008. Incorporating Uncertainty into Adaptive, Transboundary Water Challenges: a conceptual design for the Okavango River Basin. *International Journal of Risk Assessment and Management*. 10(4):312 – 338.
 71. Kiker, G.A., Bridges, T.S., Kim, J. ** 2008. Integrating Comparative Risk Assessment with Multi-Criteria Decision Analysis to Manage Contaminated Sediments: An Example From New York/New Jersey Harbor.

Human and Ecological Risk Assessment 14/3: 495-511. (Note: Paper Received the Journal's Best Integrated Risk Assessment Paper Award of 2008)

72. Yatsalo, B., Kiker, G. A., Kim, J.B. **, Bridges, T. S., Seager, T. P., Gardner, K., Satterstrom, F. K. & Linkov, I. 2007. Application of Multi-Criteria Decision Analysis Tools to Two Contaminated Sediment Case Studies. *Integrated Environmental Assessment and Management*. 3/2:223-233.
73. Linkov, I., Satterstrom, F. K., Kiker, G. A., Bridges, T. S., Benjamin, S. L. & Belluck, D. A. 2006. From optimization to adaptation: shifting paradigms in Environmental Management. *Integrated Environmental Assessment and Management*. 2/1:92-98.
74. Kiker, G. A., Clark, D. J., Martinez, C. J. ** & Schulze, R. E. 2006. A Java-based, Object-Oriented Modeling System for Southern African Hydrology. *Transactions of the American Society of Agricultural and Biological Engineers (ASAE/ASABE)* 49/5:1419-1434.
75. Linkov, I., Sahay, S., Seager, T. P., Kiker, G. A., Bridges, T. S., Belluck, D. A. & Meyer, A. 2006. Multi-Criteria Decision Analysis: Comprehensive Decision Analysis Tool for Risk Management of Contaminated Sediments. *Risk Analysis* 26/1:1-18.
76. Linkov, I., Satterstrom, F. K., Kiker, G. A., Batchelor, C. J. & Bridges, T. S. 2006. From comparative risk assessment to multi-criteria decision analysis and adaptive management: recent developments and applications. *Environment International* 32/8:1072-1093.
77. Kiker, G. A., Bridges, T. S., Varghese, A., Seager, T. P. & Linkov, I. 2005. Application of Multi-Criteria Decision Analysis in Environmental Decision-Making. *Integrated Environmental Assessment and Management* 1/2:1-14.
78. O'Connor, T. and Kiker, G.A. 2004. Collapse of the Mapungubwe Society: Vulnerability of Pastoralism to Increasing Aridity. *Climatic Change* 66:49-66.
79. Ascough, G.W.* and Kiker G.A. 2002. The Effect of Irrigation Uniformity on Irrigation Water Requirements. *Water SA* Vol. 28 No.2: 235-241.
80. Zhang, J., Haan, C.T., Tremwell, T.K. and Kiker G.A. 1995. Evaluation of Phosphorous Loading Models for South Florida. *Transactions of the ASAE* 38(3):767-773.
81. Negahban, B., Fonyo, C., Boggess, W.G., Jones, J.W., Campbell, K.L., Kiker, G.A., Flaig, E., and Lal, H. 1995. LOADSS: A GIS-based decision support system for regional environmental planning. *Ecological Engineering* 5:391-404.
82. Schulze, R.E., Kiker, G.A., and Kunz, R.P. 1993. Global Climate Change and Agricultural Productivity in Southern Africa. *Global Environmental Change* 3(4):330-349.

Books and monographs

1. Linkov, I. , Kiker, G.A. and Wenning, R.J. (2007): Environmental Security in Harbors and Coastal Areas: Management using Comparative Risk Assessment and Multi-Criteria Decision Analysis. Springer, Netherlands. ISBN: 978-1-4020-5801-1.
2. Linkov, I., Wenning, R. J. and Kiker, G. A. (2007): Managing Critical Infrastructure Risks. Springer, Netherlands. ISBN: 978-1-4020-6384-8.

Book Chapters

1. Rebar, R.A., Palma-Oliveira, J.M., Pescaroli, G., Kiker, G.A., Stennett-Brown, R.K., Saunders, C., Guannel, G.E., Trump, B.D., Linkov, I. and Lambert, J.H., 2023. Principles of Systemic Resilience to Climate Change in Caribbean Small Island Developing States. In *Building Resilience to Climate Change in Small Island Developing States (SIDS) in the Caribbean* (pp. 13-33). Cham: Springer Nature Switzerland.
2. Kiker, G.A. and Scogings, P.F. 2019. Savanna Ecosystem Models: What Should a Clever Modeler Code? (Chapter 20 in Scogings, P.F. and Sankaran, M. (Eds) *Savanna Woody Plants and Large Herbivores*. John Wiley Press. <https://doi.org/10.1002/9781119081111.ch20>
3. Perz, S.G., Selaya, G., Muñoz-Carpena, R., Kiker, G.A., Baraloto, C., Marsik, M. and Southworth, J. 2019. Scientists and Stakeholders, Data and Diagnostics: Crossing Boundaries for Modeling the Impacts of Highway Paving in a Tri-national Frontier in the Amazon. (Chapter 10 in Perz, S.G. (Ed) *Collaboration Across Boundaries for Social-Ecological Systems Science: Experiences Around the World*. Palgrave MacMillan.
4. Convertino, M.**, Munoz-Carpena R., Troccoli A., Kiker, G., Linkov I., 2011, Integrated Modeling to Mitigate Climate Change Risk due to Sea-Level Rise of Imperiled Shorebirds on Florida Coastal Military Installations. (Chapter in Pielke, R.A. Sr. (Ed)). *Water Encyclopedia, Climate Sustainability: Understanding and Addressing Threats to Essential Resources*. Elsevier, Netherlands. [PEER REVIEWED]

5. Convertino, M.** , Kiker, G.A., Chu-Agor, M.L., Munoz-Carpena, R., Martinez, C.J., Aiello-Lammens, M., Akcakaya, R.H., Fischer, R.A., and Linkov, I. 2011. Integrated Modeling to Mitigate Climate Change Risk due to Sea- Level Rise of Imperiled Shorebirds on Florida Coastal Military Installations. (Chapter in Linkov, I. and Bridges, T. (Eds)) *Climate Change: Global Change and Local Adaptation*. Springer., Netherlands.
6. Kiker, G.A., Munoz-Carpena, R., Ranger, N., Kiker, M.K., and Linkov, I. 2011. Adaptation in Coastal Systems: Vulnerability and Uncertainty within Complex Socioecological Systems. 2011. (Chapter in Linkov, I. and Bridges, T. (Eds)) *Climate Change: Global Change and Local Adaptation*. Springer., Netherlands.
7. Muller, S*., Munoz-Carpena, R., Kiker, G.A. 2011. Model Relevance: Frameworks for Exploring the Complexity-Sensitivity-Uncertainty Trilemma. (Chapter in Linkov, I. and Bridges, T. (Eds)) *Climate Change: Global Change and Local Adaptation*. Springer., Netherlands.
8. Kiker, G.A. and Thummapalli, R.* 2008. How2QnD: Design and Construction of a Game-Style, Environmental Simulation Engine and Interface Using UML, XML and Java. (Chapter in Papajorgji , P.J. and Pardalos, P.M. (Eds). *Advances in Modeling Agricultural Systems*. Springer. Netherlands.
9. Goodwin, R. A., Pandey, V.* , Kiker, G. A. & Kim, J.** 2007. Spatially-Explicit Population Models with Complex Decisions: Fish, Cattle, and Decision Analysis. pp. 293-308 in Linkov, I., Kiker, G. A. & Wenning, R. J. *Environmental Security in Harbors and Coastal Areas: Management using Comparative Risk Assessment and Multi-Criteria Decision Analysis*. Netherlands: Springer. (978-1-4-20-5801-1).
10. Kiker, G. A., Linkov, I. & Bridges, T. S. 2007. Integrating Comparative Risk Assessment and Multi-Criteria Decision Analysis: Working Through Wicked Problems and their Impossible Solutions. pp. 37-52 in Linkov, I., Kiker, G. A. & Wenning, R. J. *Environmental Security in Harbors and Coastal Areas: Management using Comparative Risk Assessment and Multi-Criteria Decision Analysis*. Netherlands: Springer. (978-1-4-20-5801-1).
11. Linkov, I., Yatsalo, B., Tkachuk, A., Satterstrom, F. K., Kiker, G. A., Kim, J.** , Bridges, T. S., Seager, T. P. & Gardner, K. 2007. Comparative Assessment of Several Multi-Criteria Decision Analysis Tools for Management of Contaminated Sediments pp. 195-217 in Linkov, I., Kiker, G. A. & Wenning, R. J. *Environmental Security in Harbors and Coastal Areas: Management using Comparative Risk Assessment and Multi-Criteria Decision Analysis*. Netherlands: Springer. (978-1-4-20-5801-1).
12. Sullivan, T., Grebenkov, A., Yatsalo, B., Linkov, I., Kiker, G. A. & Kapustka, L. 2007. Decision Evaluation for Complex Risk Networked Systems Development Progress. pp. 369-391 in Linkov, I., Wenning, R. J. & Kiker, G. A. *Managing Critical Infrastructure Risks*. Netherlands: Springer. (978-1-4020-6384-8).
13. Satterstrom, F.K., Linkov, I, Kiker, G.A., Bridges, T.S. and Greenburg, M. 2007. Adaptive Management: A Review and Framework for Integration with Multi-Criteria Decision Analysis. pp. 89-128 in Macey, G. and Cannon, J.Z.. *Rethinking Superfund Institutions, Methods and Practices*. Springer. Netherlands. (978-0-387-48856-1).
14. Kiker, G. A. & Linkov, I. 2006. The QnD Model/Game System: Integrating Questions and Decisions for Multiple Stressors. pp. 203-225 in Arapis, G., Goncharova, N. & Baveye, P. *Ecotoxicology, Ecological Risk Assessment and Multiple Stressors*. Netherlands: Springer. (1-4020-4475-5).
15. Kiker, G. A., Rivers-Moore, N. A., Kiker, M. K. & Linkov, I. 2006. QnD: A modeling game system for integrating environmental processes and practical management decisions. pp. 151-185 in Morel, B. & Linkov, I. *Environmental Security and Environmental Management: The Role of Risk Assessment*. Netherlands: Springer. (1-4020-3892-5).
16. Bridges, T. S., Kiker, G. A., Cura, J., Apul, D. & Linkov, I. 2005. Towards Using Comparative Risk Assessment To Manage Contaminated Sediments pp. 261-270 in Levner, E., Linkov, I. & Proth, J. *Strategic Management of Marine Ecosystems*. Netherlands: Springer. (1-4020-3158-0).
17. Linkov, I., Sahay, S., Kiker, G. A., Bridges, T. S. & Seager, T. P. 2005. Multi-Criteria Decision Analysis: A Framework For Managing Contaminated Sediments. pp. 271-298 in Levner, E., Linkov, I. & Proth, J. *Strategic Management of Marine Ecosystems*. Netherlands: Springer. (1-4020-3158-0).
18. Schulze, R.E., Kiker, G.A. and Kunz, R.P. 1996. Global Climate Change and Agricultural Productivity in Southern Africa: Thought for Food and Food for Thought. pp. 421-448 In: *Climate Change and World Food Security*. T.E. Downing (ed). NATO ASI Series, Vol. I 37. Springer-Verlag Berlin Heidelberg. (3-540-60562-2)

Scientific and professional societies:

ASABE, Society for Engineering in Agriculture, Food and Biosystems (National and Florida Section)
AAAS, American Association for the Advancement of Science
SRA, Society for Risk Analysis

Honors and awards:

UF Institute for Sustainable Food Systems (ISFS) Fellow (2017)
UF Climate Institute Oxford/UF Fellow (2015)
Fulbright Scholar (2012) (South Africa)
UF International Center - International Educator Award (2011)
IFAS International Achievement Award (2011)
International Educator Award (Junior Faculty) (2009) – UF International Center
Human and Ecological Risk Assessment Journal – Best Integrated Risk Assessment Paper (2008)
Emerging Leadership Program – 2004 –US Army Corps of Engineers
Best Lecturer Award - School of Bioresource Engineering and Environmental Hydrology, University of Natal (South Africa)
Fulbright Scholar 1992 (South Africa)

Institutional and professional service:National/International - Level

Agricultural Model Intercomparison and Improvement Project (AgMIP) – Rangeland Modeling Committee (2021-Present)
AAAS Review Panel (2016)
Fulbright National Subject Area Reviewer (2016-2017)
Fulbright Selection Board: South Africa (2013-2016)
Associate Editor: Nature: Scientific Reports (Scopus Q1)
Associate Editor: Environment, Systems and Decisions (Scopus Q1)
Associate Editor: African Journal of Range and Forage Science (Scopus Q1)
Journal Reviewer: AAAS Invited Reviewer; African Journal of Wildlife Research, Agricultural Systems; Applied Geography; Bothalia, Conservation Science and Practice, Ecological Informatics, Environment Systems & Decisions, Environmental Science & Policy; Integrated Environmental Assessment and Management; Environmental Science & Technology; Global Environmental Change; Journal of Hydrology Regional Studies; PLoS One; Transactions of the American Society of Agricultural Engineers; Water Practice.

University- Level

Member: UF Information Security Advisory Committee- 2015- Present
Member: UF Center for African Studies Faculty Advisory Board, 2006-09, 2023-Present
Member: UF Fulbright Committee – 2017 – Present (currently Vice Chair)
Member: UF Creative Campus Committee – 2019 – 2021
Member: UF Center for Remote Sensing Faculty Advisory Board – 2022- Present

College- Level

Member: SNRE Faculty Advisory Committee, 2021 – 2024
Member: CALS Graduate Advisors Committee, 2014-Present

Department Level

Interim Department Chair (Jan 2025 – Present)
Graduate Coordinator – 2014 - 2024
Faculty Advisor: Engineers Without Borders - 2015 – Present

Research Funding (last five years with funding agency, years, and amount)

NATO-SPS: (Co-PI) Pathways for Infrastructure Resilience in Ukraine (2025-2026) (PI-Carpena,\$400k, Kiker portion \$45k)

NSF-EAGER IMPRESS-U: (Co-PI) Adaptive Infrastructure Recovery from Repeated Shocks through Resilience Stress Testing in Ukraine (2024-2026) (PI-Carpena,\$298k, Kiker portion \$46k)

NASA-SERVIR (Co-PI) – Integrating socio-economic and remotely sensed information to characterize conflict precursors and land degradation dynamics in Ghana (2023-2026, PI-Judge, \$800k, Kiker portion \$5k+Travel)

USDA Foundation for Food & Agriculture Research (FFAR) (Co-PI) Integrated Food Waste Measurement and Predictions Supported by Agent-Based Models (IFWASTE) (2023-2025), (PI-Boz \$600k, Kiker portion \$45k)

USAID Feed-The-Future Innovation Lab for Livestock - Phase 2 (Co-PI) (2021-2026) Future Systems Section Leader, \$17M total funding level, Kiker portion (approx. \$135k)

NASA-SERVIR (Co-PI) – Linking deforestation, urbanization, and agricultural expansion for land-use decisions in Ghana (2020-2023, PI-Judge, \$900k, Kiker portion \$11k+Travel)

NSF-EAGER International Type II (PI): Inclusiveness and Diversity as Building Blocks of Resilient International Research Teams in the Age of COVID-19 (2021-2023) (\$300k)

USDA – Cooperative Research Grant (PI) - Understanding the Impacts of Climate on Livestock (2022-2024) (\$100k)

Department of Defense – MINERVA Grant (Co-PI) - Social and institutional determinants of vulnerability and resilience to climate hazards in the African Sahel. (2022-2024) (\$700k, Kiker portion approx. \$30k).

Bill & Melinda Gates Foundation - (Snr Pers) - Markets Analysis for Pastoralists (MAP) (Phase 1 – 2021-2023, \$600k, Kiker portion \$10k+Travel)

Bill & Melinda Gates Foundation - (Snr Pers) – Precision Livestock Farming Technologies Evaluation in Africa (Phase 1 – 2023-2025, \$2.2M, Kiker portion \$8k + travel)

UF Global Food Systems Institute (PI) – Strike Force funding for forming a Middle East North Africa (MENA) research group - (\$10k) (2023-2024)

US State Dept in Jordan (“RAWABIT”/”Exchanges” program (Co-PI), Funding for a Biological Modeling Workshop with universities and research institutions in Jordan (\$10k) (2023-2024)

Center for African Studies - Natural Resource Management in Africa & Sustainable Savannas Initiative Working Group (approx. \$2k)

Pathfinder Fellowship for PhD Student (UF Graduate Fellowship, approx. \$250k shared with Dr Ziyne Boz) – Cascading and Combined Impacts of the Russia-Ukraine Conflict and Climate Change on Global Agri-Food Systems Resilience.

CLASSES TAUGHT AT UNIVERSITY OF FLORIDA

AOM 4643/6736 – Principles & Issues in Environmental Hydrology (Fall Online, 80-100 students) 100%

AOM4455 - Agricultural Operations Systems (Spring, In-Person) (2019-2024, 20-30 students) 30%

ABE 5643C – Biological Systems Modeling: Courses (Fall In-Person & Online, 20-25 students): 50%

ABE 6649C – Advanced Biological Systems Modeling (Spring In-Person & Online, 8-12 students): 50%

ABE6933 – Agent-Based Modeling in Biological Systems (Summer B Online, 5-8 students): 100%

ABE6933 – Risk and Decision Analysis in Biological Systems (Summer B Online, 3-7 students): 100%

ABE6933 – Landscape Modeling in Biological Systems (Summer C, Odd years, Online. 3-7 students): 100%

GRADUATE STUDENTS SUPERVISED

University of Florida – Currently Chair of 2 PhD students and 1 master’s student. Completed graduate students - 10 PhD Students (as Chair), 11 PhD Students (as Co-Chair), 13 master’s students (as Chair), 2 master’s students (as Co-Chair), 73 PhD committee memberships, 15 Masters committee memberships

University of Nairobi (Kenya) – (Committee Member) 1 PhD student

University of Botswana – (Committee Member) 1 ongoing PhD student and 1 ongoing master’s Student (Co-Chair)

University of KwaZulu-Natal (South Africa) – Adjunct Faculty: 2 completed PhD Students (as Chair), 2 master’s Students (finished pre-2005)