Hermann Lotze-Campen

List of Publications by Year
in descending order

107 papers	13,693 citations	41258 49 h-index	34900 98 g-index
121 all docs	121 docs citations	121 times ranked	13779 citing authors

#	Article	IF	Citations
1	The Shared Socioeconomic Pathways and their energy, land use, and greenhouse gas emissions implications: An overview. Global Environmental Change, 2017, 42, 153-168.	3.6	2,966
2	Modelling the role of agriculture for the 20th century global terrestrial carbon balance. Global Change Biology, 2007, 13, 679-706.	4.2	1,133
3	Land-use futures in the shared socio-economic pathways. Global Environmental Change, 2017, 42, 331-345.	3.6	645
4	Climate change effects on agriculture: Economic responses to biophysical shocks. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 3274-3279.	3.3	568
5	Fossil-fueled development (SSP5): An energy and resource intensive scenario for the 21st century. Global Environmental Change, 2017, 42, 297-315.	3.6	418
6	Bending the curve of terrestrial biodiversity needs an integrated strategy. Nature, 2020, 585, 551-556.	13.7	413
7	Assessing the impacts of 1.5â€ Â°C global warming â€" simulation protocol of the Inter-Sectoral Impact Model Intercomparison Project (ISIMIP2b). Geoscientific Model Development, 2017, 10, 4321-4345.	1.3	410
8	Reactive nitrogen requirements to feed the world in 2050 and potential to mitigate nitrogen pollution. Nature Communications, 2014, 5, 3858.	5.8	356
9	Climate change risks for African agriculture. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 4313-4315.	3.3	342
10	Food consumption, diet shifts and associated non-CO2 greenhouse gases from agricultural production. Global Environmental Change, 2010, 20, 451-462.	3.6	323
11	Challenges for land system science. Land Use Policy, 2012, 29, 899-910.	2.5	320
12	Risk of increased food insecurity under stringent global climate change mitigation policy. Nature Climate Change, 2018, 8, 699-703.	8.1	319
13	Adaptation to climate change through the choice of cropping system and sowing date in sub-Saharan Africa. Global Environmental Change, 2013, 23, 130-143.	3.6	222
14	Climate change impacts on agriculture in 2050 under a range of plausible socioeconomic and emissions scenarios. Environmental Research Letters, 2015, 10, 085010.	2.2	216
15	From LTER to LTSER: Conceptualizing the Socioeconomic Dimension of Long-term Socioecological Research. Ecology and Society, 2006, 11, .	1.0	189
16	Internal and external green-blue agricultural water footprints of nations, and related water and land savings through trade. Hydrology and Earth System Sciences, 2011, 15, 1641-1660.	1.9	183
17	Why do global long-term scenarios for agriculture differ? An overview of the AgMIP Global Economic Model Intercomparison. Agricultural Economics (United Kingdom), 2014, 45, 3-20.	2.0	183
18	A sustainable development pathway for climate action within the UN 2030 Agenda. Nature Climate Change, 2021, 11, 656-664.	8.1	179

#	Article	IF	Citations
19	Global Food Demand Scenarios for the 21st Century. PLoS ONE, 2015, 10, e0139201.	1.1	178
20	Agriculture and climate change in global scenarios: why don't the models agree. Agricultural Economics (United Kingdom), 2014, 45, 85-101.	2.0	172
21	Land-use protection for climate change mitigation. Nature Climate Change, 2014, 4, 1095-1098.	8.1	164
22	Global food demand, productivity growth, and the scarcity of land and water resources: a spatially explicit mathematical programming approach. Agricultural Economics (United Kingdom), 2008, 39, 325-338.	2.0	160
23	The economic potential of bioenergy for climate change mitigation with special attention given to implications for the land system. Environmental Research Letters, 2011, 6, 034017.	2.2	159
24	Trading more food: Implications for land use, greenhouse gas emissions, and the food system. Global Environmental Change, 2012, 22, 189-209.	3.6	154
25	Land-use transition for bioenergy and climate stabilization: model comparison of drivers, impacts and interactions with other land use based mitigation options. Climatic Change, 2014, 123, 495-509.	1.7	140
26	Investigating afforestation and bioenergy CCS as climate change mitigation strategies. Environmental Research Letters, 2014, 9, 064029.	2.2	129
27	Key determinants of global land-use projections. Nature Communications, 2019, 10, 2166.	5.8	123
28	Scenarios of global bioenergy production: The trade-offs between agricultural expansion, intensification and trade. Ecological Modelling, 2010, 221, 2188-2196.	1.2	119
29	The impact of high-end climate change on agricultural welfare. Science Advances, 2016, 2, e1501452.	4.7	118
30	Tradeâ€offs between land and water requirements for largeâ€scale bioenergy production. GCB Bioenergy, 2016, 8, 11-24.	2.5	108
31	N₂O emissions from the global agricultural nitrogen cycle â€“ current state and future scenarios. Biogeosciences, 2012, 9, 4169-4197.	1.3	96
32	Large-scale bioenergy production: how to resolve sustainability trade-offs?. Environmental Research Letters, 2018, 13, 024011.	2.2	96
33	Comparing impacts of climate change and mitigation on global agriculture by 2050. Environmental Research Letters, 2018, 13, 064021.	2.2	93
34	Impacts of increased bioenergy demand on global food markets: an AgMIP economic model intercomparison. Agricultural Economics (United Kingdom), 2014, 45, 103-116.	2.0	85
35	The ongoing nutrition transition thwarts long-term targets for food security, public health and environmental protection. Scientific Reports, 2020, 10, 19778.	1.6	85
36	Livestock in a changing climate: production system transitions as an adaptation strategy for agriculture. Environmental Research Letters, 2015, 10, 094021.	2.2	84

#	Article	IF	Citations
37	Forecasting technological change in agricultureâ€"An endogenous implementation in a global land use model. Technological Forecasting and Social Change, 2014, 81, 236-249.	6.2	83
38	Measuring agricultural land-use intensity â€" A global analysis using a model-assisted approach. Ecological Modelling, 2012, 232, 109-118.	1.2	82
39	The value of bioenergy in low stabilization scenarios: an assessment using REMIND-MAgPIE. Climatic Change, 2014, 123, 705-718.	1.7	81
40	The impact of climate change on incomes and convergence in Africa. World Development, 2020, 126, 104699.	2.6	79
41	Afforestation to mitigate climate change: impacts on food prices under consideration of albedo effects. Environmental Research Letters, 2016, 11, 085001.	2.2	74
42	Peatland protection and restoration are key for climate change mitigation. Environmental Research Letters, 2020, 15, 104093.	2.2	74
43	Projected environmental benefits of replacing beef with microbial protein. Nature, 2022, 605, 90-96.	13.7	72
44	Simulating and delineating future land change trajectories across Europe. Regional Environmental Change, 2018, 18, 733-749.	1.4	70
45	Additional CO2 emissions from land use change â€" Forest conservation as a precondition for sustainable production of second generation bioenergy. Ecological Economics, 2012, 74, 64-70.	2.9	68
46	Bioenergy production and sustainable development: science base for policymaking remains limited. GCB Bioenergy, 2017, 9, 541-556.	2.5	66
47	On sustainability of bioenergy production: Integrating co-emissions from agricultural intensification. Biomass and Bioenergy, 2011, 35, 4770-4780.	2.9	58
48	Mitigation Strategies for Greenhouse Gas Emissions from Agriculture and Land-Use Change: Consequences for Food Prices. Environmental Science & Technology, 2017, 51, 365-374.	4.6	57
49	MAgPIE 4 â€" aÂmodular open-source framework for modeling global land systems. Geoscientific Model Development, 2019, 12, 1299-1317.	1.3	56
50	Blue water scarcity and the economic impacts of future agricultural trade and demand. Water Resources Research, 2013, 49, 3601-3617.	1.7	52
51	Assessing inter-sectoral climate change risks: the role of ISIMIP. Environmental Research Letters, 2017, 12, 010301.	2.2	49
52	Coordinating AgMIP data and models across global and regional scales for 1.5Â°C and 2.0Â°C assessments. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20160455.	1.6	48
53	Environmental flow provision: Implications for agricultural water and land-use at the global scale. Global Environmental Change, 2015, 30, 113-132.	3.6	47
54	Livestock and human use of land: Productivity trends and dietary choices as drivers of future land and carbon dynamics. Global and Planetary Change, 2017, 159, 1-10.	1.6	44

#	Article	IF	Citations
55	Valuing the impact of trade on local blue water. Ecological Economics, 2014, 101, 43-53.	2.9	42
56	Climate impacts and adaptation options in agriculture: what we know and what we donâ€™t know. Journal Fur Verbraucherschutz Und Lebensmittelsicherheit, 2009, 4, 145-150.	0.5	39
57	A framework for the cross-sectoral integration of multi-model impact projections: land use decisions under climate impacts uncertainties. Earth System Dynamics, 2015, 6, 447-460.	2.7	38
58	Farmersâ€™ perspectives. International Journal of Climate Change Strategies and Management, 2018, 10, 551-579.	1.5	38
59	Land-Use and Carbon Cycle Responses to Moderate Climate Change: Implications for Land-Based Mitigation?. Environmental Science & Technology, 2015, 49, 6731-6739.	4.6	36
60	Livestock production and the water challenge of future food supply: Implications of agricultural management and dietary choices. Global Environmental Change, 2017, 47, 121-132.	3.6	34
61	Reducing the loss of information and gaining accuracy with clustering methods in a global land-use model. Ecological Modelling, 2013, 263, 233-243.	1.2	33
62	Understanding adaptive capacity of smallholder African indigenous vegetable farmers to climate change in Kenya. Climate Risk Management, 2020, 27, 100204.	1.6	30
63	Climate impact research: beyond patchwork. Earth System Dynamics, 2014, 5, 399-408.	2.7	29
64	Drivers of sustainable intensification in Kenyan rural and peri-urban vegetable production. International Journal of Agricultural Sustainability, 2018, 16, 385-398.	1.3	29
65	Managing the Low-Carbon Transition - From Model Results to Policies. Energy Journal, 2010, 31, 223-245.	0.9	29
66	Integrating degrowth and efficiency perspectives enables an emission-neutral food system by 2100. Nature Food, 2022, 3, 341-348.	6.2	28
67	Comparative impact of climatic and nonclimatic factors on global terrestrial carbon and water cycles. Global Biogeochemical Cycles, 2006, 20, n/a-n/a.	1.9	27
68	Conservation of undisturbed natural forests and economic impacts on agriculture. Land Use Policy, 2013, 30, 344-354.	2.5	26
69	The global economic long-term potential of modern biomass in a climate-constrained world. Environmental Research Letters, 2014, 9, 074017.	2.2	26
70	Identifying pathways to visions of future land use in Europe. Regional Environmental Change, 2018, 18, 817-830.	1.4	26
71	Food system development pathways for healthy, nature-positive and inclusive food systems. Nature Food, 2021, 2, 928-934.	6.2	24
72	Agricultural trade and tropical deforestation: interactions and related policy options. Regional Environmental Change, 2015, 15, 1757-1772.	1.4	23

#	Article	IF	Citations
73	The role of modelling tools in Integrated Sustainability Assessment (ISA). International Journal of Innovation and Sustainable Development, 2008, 3, 70.	0.3	22
74	Pasture intensification is insufficient to relieve pressure on conservation priority areas in open agricultural markets. Global Change Biology, 2018, 24, 3199-3213.	4.2	22
75	Taking account of governance: Implications for land-use dynamics, food prices, and trade patterns. Ecological Economics, 2016, 122, 12-24.	2.9	21
76	Beyond land-use intensity: Assessing future global crop productivity growth under different socioeconomic pathways. Technological Forecasting and Social Change, 2020, 160, 120208.	6.2	21
77	Socio-Ecological Monitoring of Biodiversity Change: Building upon the World Network of Biosphere Reserves. Gaia, 2008, 17, 107-115.	0.3	19
78	A cross-scale impact assessment of European nature protection policies under contrasting future socio-economic pathways. Regional Environmental Change, 2018, 18, 751-762.	1.4	15
79	Reforming Chinaâ€™s fertilizer policies: implications for nitrogen pollution reduction and food security. Sustainability Science, 2023, 18, 407-420.	2.5	14
80	Ethical aspects in the economic modeling of water policy options. Global Environmental Change, 2015, 30, 80-91.	3.6	13
81	Climate Change, Agriculture, and Economic Development in Ethiopia. Sustainability, 2018, 10, 3464.	1.6	13
82	Gravity models do not explain, and cannot predict, international migration dynamics. Humanities and Social Sciences Communications, 2022, 9, .	1.3	12
83	Are scenario projections overly optimistic about future yield progress?. Global Environmental Change, 2020, 64, 102120.	3.6	11
84	Integrating the complexity of global change pressures on land and water. Global Food Security, 2012, 1, 88-93.	4.0	10
85	Livelihood and climate trade-offs in Kenyan peri-urban vegetable production. Agricultural Systems, 2018, 160, 79-86.	3.2	10
86	Adaptation Pathways for African Indigenous Vegetablesâ€™ Value Chains. Climate Change Management, 2017, , 413-433.	0.6	10
87	The impact of global change on economic values of water for Public Irrigation Schemes at the SÃ£o Francisco River Basin in Brazil. Regional Environmental Change, 2018, 18, 1943-1955.	1.4	8
88	How tight are the limits to land and water use? - Combined impacts of food demand and climate change. Advances in Geosciences, 0, 4, 23-28.	12.0	7
89	Topic modelling exposes disciplinary divergence in research on the nexus between human mobility and the environment. Humanities and Social Sciences Communications, 2022, 9, .	1.3	7
90	The Economic Impact of Exchanging Breeding Material: Assessing Winter Wheat Production in Germany. Frontiers in Plant Science, 2020, 11, 601013.	1.7	6

#	Article	IF	Citations
91	Improved data for integrated modeling of global environmental change. Environmental Research Letters, 2011, 6, 041002.	2.2	5
92	Science for food, climate protection and welfare: An economic analysis of plant breeding research in Germany. Agricultural Systems, 2015, 136, 79-84.	3.2	5
93	Pasture harvest, carbon sequestration and feeding potentials under different grazing intensities. Advances in Animal Biosciences, 2015, 6, 43-45.	1.0	5
94	Cap-and-trade of Water Rights. A Sustainable Way out of Australia's Rural Water Problems?. Gaia, 2014, 23, 318-326.	0.3	4
95	German pig farmersâ€™ perceived agency under different nitrogen policies. Environmental Research Communications, 2021, 3, 085002.	0.9	4
96	Critical Scales for Long-Term Socio-ecological Biodiversity Research. , 2013, , 123-138.		4
97	The net-benefit of bioenergy for climate change mitigation. IOP Conference Series: Earth and Environmental Science, 2009, 6, 242007.	0.2	3
98	Accounting for local temperature effect substantially alters afforestation patterns. Environmental Research Letters, 2022, 17, 024030.	2.2	3
99	Reply to: An appeal to cost undermines food security risks of delayed mitigation. Nature Climate Change, 2020, 10, 420-421.	8.1	2
100	Estimating global land system impacts of timber plantations using MAgPIE 4.3.5. Geoscientific Model Development, 2021, 14, 6467-6494.	1.3	2
101	Agricultural Adaptation Options: Production Technology, Insurance, Trade. , 2012, , 171-178.		2
102	Land Use Management for Greenhouse Gas Mitigation. , 2012, , 151-159.		1
103	Food Security in a Changing Climate. , 2012, , 33-43.		1
104	Technological change in agriculture and the trade-offs between land expansion, intensification and international trade. IOP Conference Series: Earth and Environmental Science, 2009, 6, 512003.	0.2	0
105	The Synergies and Trade-Offs of Planned Adaptation in Agriculture: a General Equilibrium Analysis for Ethiopia. Economics of Disasters and Climate Change, 2019, 3, 213-233.	1.3	0
106	How to "Geoscope" Transitions to Sustainable Water Use. Gaia, 2002, 11, 293-296.	0.3	0
107	Adaptation in Water Management. , 2012, , 163-170.		0