Elke Stehfest

List of Publications by Year
in descending order

100 papers	19,894 citations	31976 53 h-index	33894 99 g-index
124 all docs	124 docs citations	124 times ranked	20232 citing authors

#	Article	IF	Citations
1	Land-based climate change mitigation measures can affect agricultural markets and food security. Nature Food, 2022, 3, 110-121.	14.0	61
2	Integration of future water scarcity and electricity supply into prospective LCA: Application to the assessment of water desalination for the steel industry. Journal of Industrial Ecology, 2022, 26, 1182-1194.	5.5	7
3	Quantifying synergies and trade-offs in the global water-land-food-climate nexus using a multi-model scenario approach. Environmental Research Letters, 2022, 17, 045004.	5.2	11
4	Critical adjustment of land mitigation pathways for assessing countriesâ€™ climate progress. Nature Climate Change, 2021, 11, 425-434.	18.8	61
5	Identifying regional drivers of future land-based biodiversity footprints. Global Environmental Change, 2021, 69, 102304.	7.8	10
6	Trade-offs between water needs for food, utilities, and the environmentâ€"a nexus quantification at different scales. Environmental Research Letters, 2021, 16, 115003.	5.2	5
7	Landâ€based measures to mitigate climate change: Potential and feasibility by country. Global Change Biology, 2021, 27, 6025-6058.	9.5	114
8	Commentary: Food choices and environmental impacts: Achievements and challenges. Global Environmental Change, 2021, 71, 102402.	7.8	4
9	Short- and long-term warming effects of methane may affect the cost-effectiveness of mitigation policies and benefits of low-meat diets. Nature Food, 2021, 2, 970-980.	14.0	21
10	Projecting terrestrial biodiversity intactness with GLOBIO 4. Global Change Biology, 2020, 26, 760-771.	9.5	94
11	Afforestation for climate change mitigation: Potentials, risks and tradeâ€offs. Global Change Biology, 2020, 26, 1576-1591.	9.5	162
12	Are scenario projections overly optimistic about future yield progress?. Global Environmental Change, 2020, 64, 102120.	7.8	11
13	Bending the curve of terrestrial biodiversity needs an integrated strategy. Nature, 2020, 585, 551-556.	27.8	413
14	Future projections of biodiversity and ecosystem services in Europe with two integrated assessment models. Regional Environmental Change, 2020, 20, 1.	2.9	14
15	Reply to: An appeal to cost undermines food security risks of delayed mitigation. Nature Climate Change, 2020, 10, 420-421.	18.8	2
16	Innovation can accelerate the transition towards a sustainable food system. Nature Food, 2020, 1, 266-272.	14.0	285
17	Stakeholder-designed scenarios for global food security assessments. Global Food Security, 2020, 24, 100352.	8.1	18
18	Modelling alternative futures of global food security: Insights from FOODSECURE. Global Food Security, 2020, 25, 100358.	8.1	35

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19	Comparing the impact of future cropland expansion on global biodiversity and carbon storage across models and scenarios. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190189.	4.0	21
20	How food secure are the green, rocky and middle roads: food security effects in different world development paths. Environmental Research Communications, 2020, 2, 031002.	2.3	17
21	Mapping the yields of lignocellulosic bioenergy crops from observations at the global scale. Earth System Science Data, 2020, 12, 789-804.	9.9	26
22	Global rules for translating land-use change (LUH2) to land-cover change for CMIP6 using GLM2. Geoscientific Model Development, 2020, 13, 3203-3220.	3.6	31
23	Harmonization of global land use change and management for the period 850â€“2100 (LUH2) for CMIP6. Geoscientific Model Development, 2020, 13, 5425-5464.	3.6	408
24	Data for long-term marginal abatement cost curves of non-CO2 greenhouse gases. Data in Brief, 2019, 25, 104334.	1.0	6
25	Long-term marginal abatement cost curves of non-CO2 greenhouse gases. Environmental Science and Policy, 2019, 99, 136-149.	4.9	40
26	Key determinants of global land-use projections. Nature Communications, 2019, 10, 2166.	12.8	123
27	Global emissions pathways under different socioeconomic scenarios for use in CMIP6: a dataset of harmonized emissions trajectories through the end of the century. Geoscientific Model Development, 2019, 12, 1443-1475.	3.6	496
28	Making the Paris agreement climate targets consistent with food security objectives. Global Food Security, 2019, 23, 93-103.	8.1	46
29	Future global pig production systems according to the Shared Socioeconomic Pathways. Science of the Total Environment, 2019, 665, 739-751.	8.0	55
30	Modeling forest plantations for carbon uptake with the LPJmL dynamic global vegetation model. Earth System Dynamics, 2019, 10, 617-630.	7.1	22
31	Integrated scenarios to support analysis of the foodâ€“energyâ€“water nexus. Nature Sustainability, 2019, 2, 1132-1141.	23.7	79
32	Contribution of the land sector to a 1.5 Â°C world. Nature Climate Change, 2019, 9, 817-828.	18.8	301
33	Agricultural non-CO2 emission reduction potential in the context of the 1.5â€‰Â°C target. Nature Climate Change, 2019, 9, 66-72.	18.8	139
34	Scenarios towards limiting global mean temperature increase below 1.5 Â°C. Nature Climate Change, 2018, 8, 325-332.	18.8	795
35	Alternative pathways to the 1.5â€‰Â°C target reduce the need for negative emission technologies. Nature Climate Change, 2018, 8, 391-397.	18.8	455
36	Large uncertainty in carbon uptake potential of landâ€based climateâ€change mitigation efforts. Global Change Biology, 2018, 24, 3025-3038.	9.5	56

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37	Biogeophysical Impacts of Landâ€Use Change on Climate Extremes in Lowâ€Emission Scenarios: Results From HAPPIâ€Land. Earth's Future, 2018, 6, 396-409.	6.3	31
38	Exploring SSP land-use dynamics using the IMAGE model: Regional and gridded scenarios of land-use change and land-based climate change mitigation. Global Environmental Change, 2018, 48, 119-135.	7.8	202
39	Global projections of future cropland expansion to 2050 and direct impacts on biodiversity and carbon storage. Global Change Biology, 2018, 24, 5895-5908.	9.5	126
40	AÂframework for modelling the complexities of food and water security under globalisation. Earth System Dynamics, 2018, 9, 103-118.	7.1	29
41	Comparing impacts of climate change and mitigation on global agriculture by 2050. Environmental Research Letters, 2018, 13, 064021.	5.2	93
42	A Global Analysis of Future Water Deficit Based On Different Allocation Mechanisms. Water Resources Research, 2018, 54, 5803-5824.	4.2	42
43	Risk of increased food insecurity under stringent global climate change mitigation policy. Nature Climate Change, 2018, 8, 699-703.	18.8	319
44	Climate extremes, landâ€"climate feedbacks and land-use forcing at 1.5Â°C. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20160450.	3.4	46
45	REDD policy impacts on the agri-food sector and food security. Food Policy, 2017, 66, 73-87.	6.0	14
46	A physically-based model of long-term food demand. Global Environmental Change, 2017, 45, 47-62.	7.8	59
47	Impact of LULCC on the emission of BVOCs during the 21st century. Atmospheric Environment, 2017, 165, 73-87.	4.1	11
48	Greenhouse gas emission curves for advanced biofuel supply chains. Nature Climate Change, 2017, 7, 920-924.	18.8	57
49	Land-use futures in the shared socio-economic pathways. Global Environmental Change, 2017, 42, 331-345.	7.8	645
50	Future air pollution in the Shared Socio-economic Pathways. Global Environmental Change, 2017, 42, 346-358.	7.8	277
51	Assessing uncertainties in land cover projections. Global Change Biology, 2017, 23, 767-781.	9.5	103
52	Energy, land-use and greenhouse gas emissions trajectories under a green growth paradigm. Global Environmental Change, 2017, 42, 237-250.	7.8	523
53	The Shared Socioeconomic Pathways and their energy, land use, and greenhouse gas emissions implications: An overview. Global Environmental Change, 2017, 42, 153-168.	7.8	2,966
54	Global consequences of afforestation and bioenergy cultivation on ecosystem service indicators. Biogeosciences, 2017, 14, 4829-4850.	3.3	33

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55	Current challenges of implementing anthropogenic land-use and land-cover change in models contributing to climate change assessments. Earth System Dynamics, 2017, 8, 369-386.	7.1	69
56	Anthropogenic land use estimates for the Holocene â€“ HYDE 3.2. Earth System Science Data, 2017, 9, 927-953.	9.9	587
57	Hotspots of uncertainty in landâ€use and landâ€cover change projections: a globalâ€scale model comparison. Global Change Biology, 2016, 22, 3967-3983.	9.5	171
58	Projections of the availability and cost of residues from agriculture and forestry. GCB Bioenergy, 2016, 8, 456-470.	5.6	127
59	Demand for biodiversity protection and carbon storage as drivers of global land change scenarios. Global Environmental Change, 2016, 40, 101-111.	7.8	71
60	Similar estimates of temperature impacts on global wheat yield by three independent methods. Nature Climate Change, 2016, 6, 1130-1136.	18.8	352
61	Reducing emissions from agriculture to meet the 2ÂÂ°C target. Global Change Biology, 2016, 22, 3859-3864.	9.5	267
62	Drivers and patterns of land biosphere carbon balance reversal. Environmental Research Letters, 2016, 11, 044002.	5.2	38
63	Greenhouse gas mitigation potentials in the livestock sector. Nature Climate Change, 2016, 6, 452-461.	18.8	588
64	Global impacts of surface ozone changes on crop yields and land use. Atmospheric Environment, 2015, 106, 11-23.	4.1	73
65	Pathways to achieve a set of ambitious global sustainability objectives by 2050: Explorations using the IMAGE integrated assessment model. Technological Forecasting and Social Change, 2015, 98, 303-323.	11.6	141
66	Model collaboration for the improved assessment of biomass supply, demand, and impacts. GCB Bioenergy, 2015, 7, 422-437.	5.6	54
67	Food choices for health and planet. Nature, 2014, 515, 501-502.	27.8	38
68	Assessing agricultural risks of climate change in the 21st century in a global gridded crop model intercomparison. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 3268-3273.	7.1	1,649
69	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.	3.6	140
70	Estimating the opportunity costs of reducing carbon dioxide emissions via avoided deforestation, using integrated assessment modelling. Land Use Policy, 2014, 41, 45-60.	5.6	28
71	The representation of landscapes in global scale assessments of environmental change. Landscape Ecology, 2013, 28, 1067-1080.	4.2	68
72	If climate action becomes urgent: the importance of response times for various climate strategies. Climatic Change, 2013, 121, 473-486.	3.6	19

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73	Options to reduce the environmental effects of livestock production â€“ Comparison of two economic models. Agricultural Systems, 2013, 114, 38-53.	6.1	45
74	Exploring global changes in nitrogen and phosphorus cycles in agriculture induced by livestock production over the 1900â€“2050 period. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 20882-20887.	7.1	742
75	Including CO2 implications of land occupation in LCAsâ€"method and example for livestock products. International Journal of Life Cycle Assessment, 2012, 17, 962-972.	4.7	51
76	A land-use systems approach to represent land-use dynamics at continental and global scales. Environmental Modelling and Software, 2012, 33, 61-79.	4.5	99
77	An evaluation of the global potential of bioenergy production on degraded lands. GCB Bioenergy, 2012, 4, 130-147.	5.6	96
78	Exploring global irrigation patterns: A multilevel modelling approach. Agricultural Systems, 2011, 104, 703-713.	6.1	58
79	Multi-scale scenarios of spatial-temporal dynamics in the European livestock sector. Agriculture, Ecosystems and Environment, 2011, 140, 88-101.	5.3	23
80	How well do integrated assessment models simulate climate change?. Climatic Change, 2011, 104, 255-285.	3.6	127
81	RCP2.6: exploring the possibility to keep global mean temperature increase below 2Â°C. Climatic Change, 2011, 109, 95-116.	3.6	759
82	Indirect land use change emissions related to EU biofuel consumption: an analysis based on historical data. Environmental Science and Policy, 2011, 14, 248-257.	4.9	66
83	Exploring IMAGE model scenarios that keep greenhouse gas radiative forcing below 3W/m2 in 2100. Energy Economics, 2010, 32, 1105-1120.	12.1	62
84	Competition for land. Philosophical Transactions of the Royal Society B: Biological Sciences, 2010, 365, 2941-2957.	4.0	365
85	Impacts of model structure and data aggregation on European wide predictions of nitrogen and green house gas fluxes in response to changes in livestock, land cover, and land management. Journal of Integrative Environmental Sciences, 2010, 7, 145-157.	2.5	14
86	Impact of future land use and land cover changes on atmospheric chemistryâ€climate interactions. Journal of Geophysical Research, 2010, 115, .	3.3	99
87	The yield gap of global grain production: A spatial analysis. Agricultural Systems, 2010, 103, 316-326.	6.1	420
88	Low Stabilization Scenarios and Implications for Major World Regions from an Integrated Assessment Perspective. Energy Journal, 2010, 31, 165-192.	1.7	9
89	Future bio-energy potential under various natural constraints. Energy Policy, 2009, 37, 4220-4230.	8.8	147
90	Climate benefits of changing diet. Climatic Change, 2009, 95, 83-102.	3.6	640

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91	The importance of three centuries of land-use change for the global and regional terrestrial carbon cycle. Climatic Change, 2009, 97, 123-144.	3.6	59
92	Contribution of N₂O to the greenhouse gas balance of firstâ€generation biofuels. Global Change Biology, 2009, 15, 1-23.	9.5	157
93	Contribution of N2O to the greenhouse gas balance of first-generation biofuels. Global Change Biology, 2009, 15, 780-780.	9.5	3
94	The contribution of N2O to the greenhouse gas balance of first-generation biofuels. Global Change Biology, 2009, 16, 2400-2400.	9.5	0
95	The effect of agricultural trade liberalisation on land-use related greenhouse gas emissions. Global Environmental Change, 2009, 19, 434-446.	7.8	55
96	Global scale DAYCENT model analysis of greenhouse gas emissions and mitigation strategies for cropped soils. Global and Planetary Change, 2009, 67, 44-50.	3.5	179
97	New Study For Climate Modeling, Analyses, and Scenarios. Eos, 2009, 90, 181-182.	0.1	24
98	Simulation of global crop production with the ecosystem model DayCent. Ecological Modelling, 2007, 209, 203-219.	2.5	146
99	N2O and NO emission from agricultural fields and soils under natural vegetation: summarizing available measurement data and modeling of global annual emissions. Nutrient Cycling in Agroecosystems, 2006, 74, 207-228.	2.2	815
100	Simulation of N2O emissions from a urine-affected pasture in New Zealand with the ecosystem model DayCent. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	30