

Petr Havlik

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

141
papers

13,606
citations

57
h-index

116
g-index

153
ext. papers

17,599
ext. citations

10.1
avg, IF

6.07
L-index

#	Paper	IF	Citations
141	A Risk-Informed Decision-Making Framework for Climate Change Adaptation through Robust Land Use and Irrigation Planning. <i>Sustainability</i> , 2022 , 14, 1430	3.6	1
140	Linking Distributed Optimization Models for Food, Water, and Energy Security Nexus Management. <i>Sustainability</i> , 2022 , 14, 1255	3.6	2
139	Land-based climate change mitigation measures can affect agricultural markets and food security. <i>Nature Food</i> , 2022 , 3, 110-121	14.4	4
138	Global biomass supply modeling for long-run management of the climate system. <i>Climatic Change</i> , 2022 , 172,	4.5	1
137	Reply to Comment by Rigolot on "Narratives Behind Livestock Methane Mitigation Studies Matter" <i>AGU Advances</i> , 2021 , 2, e2021AV000549	5.4	1
136	How much multilateralism do we need? Effectiveness of unilateral agricultural mitigation efforts in the global context. <i>Environmental Research Letters</i> , 2021 , 16, 104038	6.2	0
135	Land-based measures to mitigate climate change: Potential and feasibility by country. <i>Global Change Biology</i> , 2021 , 27, 6025-6058	11.4	17
134	Paying the price for environmentally sustainable and healthy EU diets. <i>Global Food Security</i> , 2021 , 28, 100437	8.3	7
133	Critical adjustment of land mitigation pathways for assessing countries' climate progress. <i>Nature Climate Change</i> , 2021 , 11, 425-434	21.4	16
132	The Key Role of Production Efficiency Changes in Livestock Methane Emission Mitigation. <i>AGU Advances</i> , 2021 , 2, e2021AV000391	5.4	8
131	Multiple rotations of Gaussian quadratures: An efficient method for uncertainty analyses in large-scale simulation models. <i>Environmental Modelling and Software</i> , 2021 , 136, 104929	5.2	1
130	Climate warming from managed grasslands cancels the cooling effect of carbon sinks in sparsely grazed and natural grasslands. <i>Nature Communications</i> , 2021 , 12, 118	17.4	34
129	Robust Management of Systemic Risks and Food-Water-Energy-Environmental Security: Two-Stage Strategic-Adaptive GLOBIOM Model. <i>Sustainability</i> , 2021 , 13, 857	3.6	3
128	Land-based climate change mitigation potentials within the agenda for sustainable development. <i>Environmental Research Letters</i> , 2021 , 16, 024006	6.2	7
127	The Possibility of Consensus Regarding Climate Change Adaptation Policies in Agriculture and Forestry among Stakeholder Groups in the Czech Republic. <i>Environmental Management</i> , 2021 , 1	3.1	
126	Reconciling regional nitrogen boundaries with global food security. <i>Nature Food</i> , 2021 , 2, 700-711	14.4	6
125	Material substitution between coniferous, non-coniferous and recycled biomass: Impacts on forest industry raw material use and regional competitiveness. <i>Forest Policy and Economics</i> , 2021 , 132, 102588	3.6	3

124	Short- and long-term warming effects of methane may affect the cost-effectiveness of mitigation policies and benefits of low-meat diets.. <i>Nature Food</i> , 2021 , 2, 970-980	14.4	2
123	Reply to: An appeal to cost undermines food security risks of delayed mitigation. <i>Nature Climate Change</i> , 2020 , 10, 420-421	21.4	0
122	Innovation can accelerate the transition towards a sustainable food system. <i>Nature Food</i> , 2020 , 1, 266-272	14.4	121
121	The impact of climate change on Brazil's agriculture. <i>Science of the Total Environment</i> , 2020 , 740, 139384	10.2	27
120	Modelling alternative futures of global food security: Insights from FOODSECURE. <i>Global Food Security</i> , 2020 , 25, 100358	8.3	14
119	Comparing the impact of future cropland expansion on global biodiversity and carbon storage across models and scenarios. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2020 , 375, 20190189	5.8	8
118	Mapping the yields of lignocellulosic bioenergy crops from observations at the global scale. <i>Earth System Science Data</i> , 2020 , 12, 789-804	10.5	9
117	Global hunger and climate change adaptation through international trade. <i>Nature Climate Change</i> , 2020 , 10, 829-835	21.4	51
116	Water Use in Global Livestock Production: Opportunities and Constraints for Increasing Water Productivity. <i>Water Resources Research</i> , 2020 , 56, e2019WR026995	5.4	12
115	Are scenario projections overly optimistic about future yield progress?. <i>Global Environmental Change</i> , 2020 , 64, 102120	10.1	6
114	Bending the curve of terrestrial biodiversity needs an integrated strategy. <i>Nature</i> , 2020 , 585, 551-556	50.4	149
113	Integrated Solutions for the Water-Energy-Land Nexus: Are Global Models Rising to the Challenge?. <i>Water (Switzerland)</i> , 2019 , 11, 2223	3	14
112	Increasing nitrogen export to sea: A scenario analysis for the Indus River. <i>Science of the Total Environment</i> , 2019 , 694, 133629	10.2	12
111	Tackling food consumption inequality to fight hunger without pressuring the environment. <i>Nature Sustainability</i> , 2019 , 2, 826-833	22.1	23
110	Key determinants of global land-use projections. <i>Nature Communications</i> , 2019 , 10, 2166	17.4	71
109	A multi-model assessment of food security implications of climate change mitigation. <i>Nature Sustainability</i> , 2019 , 2, 386-396	22.1	71
108	Global emissions pathways under different socioeconomic scenarios for use in CMIP6: a dataset of harmonized emissions trajectories through the end of the century. <i>Geoscientific Model Development</i> , 2019 , 12, 1443-1475	6.3	224
107	The sensitivity of the costs of reducing emissions from deforestation and degradation (REDD) to future socioeconomic drivers and its implications for mitigation policy design. <i>Mitigation and Adaptation Strategies for Global Change</i> , 2019 , 24, 1123-1141	3.9	6

106	Greenhouse gas abatement strategies and costs in French dairy production. <i>Journal of Cleaner Production</i> , 2019 , 236, 117589	10.3	9
105	Revisiting enteric methane emissions from domestic ruminants and their $\delta^{13}C$ source signature. <i>Nature Communications</i> , 2019 , 10, 3420	17.4	40
104	Mitigation efforts will not fully alleviate the increase in water scarcity occurrence probability in wheat-producing areas. <i>Science Advances</i> , 2019 , 5, eaau2406	14.3	50
103	Impact of modelling choices on setting the reference levels for the EU forest carbon sinks: how do different assumptions affect the country-specific forest reference levels?. <i>Carbon Balance and Management</i> , 2019 , 14, 10	3.6	8
102	Global Woody Biomass Harvest Volumes and Forest Area Use Under Different SSP-RCP Scenarios. <i>Journal of Forest Economics</i> , 2019 , 34, 285-309	1.1	10
101	Sensitivity of Global Pasturelands to Climate Variation. <i>Earth's Future</i> , 2019 , 7, 1353-1366	7.9	7
100	Contribution of the land sector to a 1.5 $^{\circ}C$ world. <i>Nature Climate Change</i> , 2019 , 9, 817-828	21.4	150
99	Agricultural non-CO ₂ emission reduction potential in the context of the 1.5 $^{\circ}C$ target. <i>Nature Climate Change</i> , 2019 , 9, 66-72	21.4	66
98	Matching policy and science: Rationale for the $\frac{1}{4}$ per 1000 - soils for food security and climate initiative. <i>Soil and Tillage Research</i> , 2019 , 188, 3-15	6.5	131
97	Scenarios towards limiting global mean temperature increase below 1.5 $^{\circ}C$. <i>Nature Climate Change</i> , 2018 , 8, 325-332	21.4	456
96	Increasing crop production in Russia and Ukraine Regional and global impacts from intensification and recultivation. <i>Environmental Research Letters</i> , 2018 , 13, 025008	6.2	22
95	Coordinating AgMIP data and models across global and regional scales for 1.5 $^{\circ}C$ and 2.0 $^{\circ}C$ assessments. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2018 , 376,	3	34
94	Spatial distribution of arable and abandoned land across former Soviet Union countries. <i>Scientific Data</i> , 2018 , 5, 180056	8.2	53
93	Global environmental costs of China's thirst for milk. <i>Global Change Biology</i> , 2018 , 24, 2198-2211	11.4	32
92	Structural change as a key component for agricultural non-CO mitigation efforts. <i>Nature Communications</i> , 2018 , 9, 1060	17.4	25
91	Metrics, models and foresight for European sustainable food and nutrition security: The vision of the SUSFANS project. <i>Agricultural Systems</i> , 2018 , 163, 45-57	6.1	27
90	Evaluating agricultural trade-offs in the age of sustainable development. <i>Agricultural Systems</i> , 2018 , 163, 73-88	6.1	99
89	Comparing impacts of climate change and mitigation on global agriculture by 2050. <i>Environmental Research Letters</i> , 2018 , 13, 064021	6.2	57

88	Risk of increased food insecurity under stringent global climate change mitigation policy. <i>Nature Climate Change</i> , 2018 , 8, 699-703	21.4	172
87	China's livestock transition: Driving forces, impacts, and consequences. <i>Science Advances</i> , 2018 , 4, eaar8534	14.3	137
86	Climate extremes, land-climate feedbacks and land-use forcing at 1.5°C. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2018 , 376,	3	38
85	Residual fossil CO2 emissions in 1.5°C pathways. <i>Nature Climate Change</i> , 2018 , 8, 626-633	21.4	219
84	Inclusive climate change mitigation and food security policy under 1.5°C climate goal. <i>Environmental Research Letters</i> , 2018 , 13, 074033	6.2	26
83	Future environmental and agricultural impacts of Brazil's Forest Code. <i>Environmental Research Letters</i> , 2018 , 13, 074021	6.2	33
82	A low energy demand scenario for meeting the 1.5°C target and sustainable development goals without negative emission technologies. <i>Nature Energy</i> , 2018 , 3, 515-527	62.3	428
81	Global exposure and vulnerability to multi-sector development and climate change hotspots. <i>Environmental Research Letters</i> , 2018 , 13, 055012	6.2	100
80	Evaluating the effects of climate change on US agricultural systems: sensitivity to regional impact and trade expansion scenarios. <i>Environmental Research Letters</i> , 2018 , 13,	6.2	20
79	The market impacts of shortening feed supply chains in Europe. <i>Food Security</i> , 2018 , 10, 1401-1410	6.7	11
78	Global emissions pathways under different socioeconomic scenarios for use in CMIP6: a dataset of harmonized emissions trajectories through the end of the century 2018 ,		5
77	Assessing Sustainable Food and Nutrition Security of the EU Food System: An Integrated Approach. <i>Sustainability</i> , 2018 , 10, 4271	3.6	29
76	A protocol for an intercomparison of biodiversity and ecosystem services models using harmonized land-use and climate scenarios. <i>Geoscientific Model Development</i> , 2018 , 11, 4537-4562	6.3	42
75	The role of trade in the greenhouse gas footprints of EU diets. <i>Global Food Security</i> , 2018 , 19, 48-55	8.3	41
74	A Global-Level Model of the Potential Impacts of Climate Change on Child Stunting via Income and Food Price in 2030. <i>Environmental Health Perspectives</i> , 2018 , 126, 97007	8.4	18
73	Assessing global resource use and greenhouse emissions to 2050, with ambitious resource efficiency and climate mitigation policies. <i>Journal of Cleaner Production</i> , 2017 , 144, 403-414	10.3	61
72	Intensification pathways for beef and dairy cattle production systems: Impacts on GHG emissions, land occupation and land use change. <i>Agriculture, Ecosystems and Environment</i> , 2017 , 240, 135-147	5.7	37
71	Farming and the geography of nutrient production for human use: a transdisciplinary analysis. <i>Lancet Planetary Health</i> , 2017 , 1, e33-e42	9.8	188

70	Linking regional stakeholder scenarios and shared socioeconomic pathways: Quantified West African food and climate futures in a global context. <i>Global Environmental Change</i> , 2017 , 45, 227-242	10.1	71
69	Seasonality constraints to livestock grazing intensity. <i>Global Change Biology</i> , 2017 , 23, 1636-1647	11.4	33
68	Reducing greenhouse gas emissions in agriculture without compromising food security?. <i>Environmental Research Letters</i> , 2017 , 12, 105004	6.2	112
67	Impact of the 2 °C target on global woody biomass use. <i>Forest Policy and Economics</i> , 2017 , 83, 121-130	3.6	24
66	Land-use futures in the shared socio-economic pathways. <i>Global Environmental Change</i> , 2017 , 42, 331-345	10.1	399
65	Future air pollution in the Shared Socio-economic Pathways. <i>Global Environmental Change</i> , 2017 , 42, 346-358	10.1	175
64	Assessing uncertainties in land cover projections. <i>Global Change Biology</i> , 2017 , 23, 767-781	11.4	76
63	The marker quantification of the Shared Socioeconomic Pathway 2: A middle-of-the-road scenario for the 21st century. <i>Global Environmental Change</i> , 2017 , 42, 251-267	10.1	349
62	Shared Socio-Economic Pathways of the Energy Sector [Quantifying the Narratives. <i>Global Environmental Change</i> , 2017 , 42, 316-330	10.1	165
61	Greenhouse gas emissions intensity of global croplands. <i>Nature Climate Change</i> , 2017 , 7, 63-68	21.4	229
60	The Shared Socioeconomic Pathways and their energy, land use, and greenhouse gas emissions implications: An overview. <i>Global Environmental Change</i> , 2017 , 42, 153-168	10.1	1479
59	Assessing the Feasibility of Global Long-Term Mitigation Scenarios. <i>Energies</i> , 2017 , 10, 89	3.1	37
58	Forest Resource Projection Tools at the European Level. <i>Managing Forest Ecosystems</i> , 2017 , 49-68	0.7	8
57	Competition for Land-Based Ecosystem Services: Trade-Offs and Synergies 2016 , 127-147		3
56	Multi-factor, multi-state, multi-model scenarios: Exploring food and climate futures for Southeast Asia. <i>Environmental Modelling and Software</i> , 2016 , 83, 255-270	5.2	37
55	Dynamics of the land use, land use change, and forestry sink in the European Union: the impacts of energy and climate targets for 2030. <i>Climatic Change</i> , 2016 , 138, 253-266	4.5	22
54	What are the limits to oil palm expansion?. <i>Global Environmental Change</i> , 2016 , 40, 73-81	10.1	145
53	Impacts of global climate change mitigation scenarios on forests and harvesting in Sweden. <i>Canadian Journal of Forest Research</i> , 2016 , 46, 1427-1438	1.9	15

52	Assessing the land resource-food price nexus of the Sustainable Development Goals. <i>Science Advances</i> , 2016 , 2, e1501499	14.3	116
51	Reducing emissions from agriculture to meet the 2°C target. <i>Global Change Biology</i> , 2016 , 22, 3859-3864	11.4	203
50	Greenhouse gas mitigation potentials in the livestock sector. <i>Nature Climate Change</i> , 2016 , 6, 452-461	21.4	376
49	Combining livestock production information in a process-based vegetation model to reconstruct the history of grassland management. <i>Biogeosciences</i> , 2016 , 13, 3757-3776	4.6	23
48	Integrated Management of Land Use Systems under Systemic Risks and Security Targets: A Stochastic Global Biosphere Management Model. <i>Journal of Agricultural Economics</i> , 2016 , 67, 584-601	3.7	14
47	Spatially explicit estimates of N ₂ O emissions from croplands suggest climate mitigation opportunities from improved fertilizer management. <i>Global Change Biology</i> , 2016 , 22, 3383-94	11.4	77
46	Hotspots of uncertainty in land-use and land-cover change projections: a global-scale model comparison. <i>Global Change Biology</i> , 2016 , 22, 3967-3983	11.4	128
45	Assessing the INDCs' land use, land use change, and forest emission projections. <i>Carbon Balance and Management</i> , 2016 , 11, 26	3.6	56
44	Effect of climate change, CO ₂ trends, nitrogen addition, and land-cover and management intensity changes on the carbon balance of European grasslands. <i>Global Change Biology</i> , 2016 , 22, 338-50	11.4	53
43	Price trends and volatility scenarios for designing forest sector transformation. <i>Energy Economics</i> , 2016 , 57, 184-191	8.3	3
42	Mapping global cropland and field size. <i>Global Change Biology</i> , 2015 , 21, 1980-92	11.4	312
41	Global food security & adaptation under crop yield volatility. <i>Technological Forecasting and Social Change</i> , 2015 , 98, 223-233	9.5	25
40	The dynamic soil organic carbon mitigation potential of European cropland. <i>Global Environmental Change</i> , 2015 , 35, 269-278	10.1	22
39	Livestock and the Environment: What Have We Learned in the Past Decade?. <i>Annual Review of Environment and Resources</i> , 2015 , 40, 177-202	17.2	145
38	Historical trade-offs of livestock environmental impacts. <i>Environmental Research Letters</i> , 2015 , 10, 125061	11.3	33
37	Livestock in a changing climate: production system transitions as an adaptation strategy for agriculture. <i>Environmental Research Letters</i> , 2015 , 10, 094021	6.2	64
36	Climate Change Impacts and Mitigation in the Developing World: An Integrated Assessment of the Agriculture and Forestry Sectors. <i>Policy Research Working Papers</i> , 2015 ,	2.1	22
35	Land-use change trajectories up to 2050: insights from a global agro-economic model comparison. <i>Agricultural Economics (United Kingdom)</i> , 2014 , 45, 69-84	2.8	176

34	Woody biomass energy potential in 2050. <i>Energy Policy</i> , 2014 , 66, 19-31	7.2	190
33	Comparing supply-side specifications in models of global agriculture and the food system. <i>Agricultural Economics (United Kingdom)</i> , 2014 , 45, 21-35	2.8	52
32	Cattle ranching intensification in Brazil can reduce global greenhouse gas emissions by sparing land from deforestation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 7236-41	11.5	144
31	Agriculture and climate change in global scenarios: why don't the models agree. <i>Agricultural Economics (United Kingdom)</i> , 2014 , 45, 85-101	2.8	146
30	Challenges to scenario-guided adaptive action on food security under climate change. <i>Global Environmental Change</i> , 2014 , 28, 383-394	10.1	139
29	Global food markets, trade and the cost of climate change adaptation. <i>Food Security</i> , 2014 , 6, 29-44	6.7	20
28	Climate change effects on agriculture: economic responses to biophysical shocks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 3274-9	11.5	436
27	Integrating livestock feeds and production systems into agricultural multi-market models: The example of IMPACT. <i>Food Policy</i> , 2014 , 49, 365-377	5	19
26	The future of food demand: understanding differences in global economic models. <i>Agricultural Economics (United Kingdom)</i> , 2014 , 45, 51-67	2.8	258
25	Climate change mitigation through livestock system transitions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 3709-14	11.5	305
24	Why do global long-term scenarios for agriculture differ? An overview of the AgMIP Global Economic Model Intercomparison. <i>Agricultural Economics (United Kingdom)</i> , 2014 , 45, 3-20	2.8	143
23	Impacts of increased bioenergy demand on global food markets: an AgMIP economic model intercomparison. <i>Agricultural Economics (United Kingdom)</i> , 2014 , 45, 103-116	2.8	73
22	How effective are the sustainability criteria accompanying the European Union 2020 biofuel targets?. <i>GCB Bioenergy</i> , 2013 , 5, 306-314	5.6	27
21	Global bioenergy scenarios [Future forest development, land-use implications, and trade-offs. <i>Biomass and Bioenergy</i> , 2013 , 57, 86-96	5.3	93
20	Crop Productivity and the Global Livestock Sector: Implications for Land Use Change and Greenhouse Gas Emissions. <i>American Journal of Agricultural Economics</i> , 2013 , 95, 442-448	3.1	81
19	Biomass use, production, feed efficiencies, and greenhouse gas emissions from global livestock systems. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 20888-93	11.5	626
18	Future GHG emissions more efficiently controlled by land-use policies than by bioenergy sustainability criteria. <i>Biofuels, Bioproducts and Biorefining</i> , 2013 , 7, 115-125	5.3	18
17	Projection of the future EU forest CO2 sink as affected by recent bioenergy policies using two advanced forest management models. <i>GCB Bioenergy</i> , 2012 , 4, 773-783	5.6	66

16	The Value of Determining Global Land Cover for Assessing Climate Change Mitigation Options 2012 , 193-230		
15	Impacts of population growth, economic development, and technical change on global food production and consumption. <i>Agricultural Systems</i> , 2011 , 104, 204-215	6.1	169
14	Farming system modelling for agri-environmental policy design: The case of a spatially non-aggregated allocation of conservation measures. <i>Ecological Economics</i> , 2011 , 70, 891-899	5.6	37
13	Global land-use implications of first and second generation biofuel targets. <i>Energy Policy</i> , 2011 , 39, 5690-5702	4.7	475
12	Highlighting continued uncertainty in global land cover maps for the user community. <i>Environmental Research Letters</i> , 2011 , 6, 044005	6.2	140
11	Competition for land. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2010 , 365, 2941-57	5.8	304
10	Carbon Calculations to Consider--Response. <i>Science</i> , 2010 , 327, 781-781	33.3	5
9	Bioenergy: Counting on Incentives--Response. <i>Science</i> , 2010 , 327, 1200-1201	33.3	7
8	Agriculture and resource availability in a changing world: The role of irrigation. <i>Water Resources Research</i> , 2010 , 46,	5.4	90
7	Climate change. Fixing a critical climate accounting error. <i>Science</i> , 2009 , 326, 527-8	33.3	344
6	On fair, effective and efficient REDD mechanism design. <i>Carbon Balance and Management</i> , 2009 , 4, 11	3.6	38
5	China's future food demand and its implications for trade and environment. <i>Nature Sustainability</i> ,	22.1	7
4	Land-based implications of early climate actions without global net-negative emissions. <i>Nature Sustainability</i> ,	22.1	4
3	Global trends in biodiversity and ecosystem services from 1900 to 2050		3
2	A protocol for an intercomparison of biodiversity and ecosystem services models using harmonized land-use and climate scenarios		1
1	Quantification of global and national nitrogen budgets for crop production. <i>Nature Food</i> ,	14.4	19