Rik Leemans

List of Publications by Year
in descending order

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141 papers	24,546 citations	44042 48 h-index	11928 134 g-index
175 all docs	175 docs citations	175 times ranked	28010 citing authors

#	Article	IF	Citations
1	Global Biodiversity Scenarios for the Year 2100 . Science, 2000, 287, 1770-1774.	6.0	7,077
2	The causes of land-use and land-cover change: moving beyond the myths. Global Environmental Change, 2001, 11, 261-269.	3.6	2,639
3	Global Desertification: Building a Science for Dryland Development. Science, 2007, 316, 847-851.	6.0	2,072
4	Special Paper: A Global Biome Model Based on Plant Physiology and Dominance, Soil Properties and Climate. Journal of Biogeography, 1992, 19, 117.	1.4	1,817
5	Ecosystem Service Supply and Vulnerability to Global Change in Europe. Science, 2005, 310, 1333-1337.	6.0	1,355
6	Comparing global vegetation maps with the Kappa statistic. Ecological Modelling, 1992, 62, 275-293.	1.2	871
7	Transdisciplinary global change research: the co-creation of knowledge for sustainability. Current Opinion in Environmental Sustainability, 2013, 5, 420-431.	3.1	639
8	The vulnerability of ecosystem services to land use change. Agriculture, Ecosystems and Environment, 2006, 114, 69-85.	2.5	580
9	Assessing effects of forecasted climate change on the diversity and distribution of European higher plants for 2050. Global Change Biology, 2002, 8, 390-407.	4.2	457
10	Future scenarios of European agricultural land use. Agriculture, Ecosystems and Environment, 2005, 107, 101-116.	2.5	414
11	A coherent set of future land use change scenarios for Europe. Agriculture, Ecosystems and Environment, 2006, 114, 57-68.	2.5	412
12	Adaptation to climate change and climate variability in European agriculture: The importance of farm level responses. European Journal of Agronomy, 2010, 32, 91-102.	1.9	376
13	Future scenarios of European agricultural land use. Agriculture, Ecosystems and Environment, 2005, 107, 117-135.	2.5	269
14	Sustainability or Collapse: What Can We Learn from Integrating the History of Humans and the Rest of Nature?. Ambio, 2007, 36, 522-527.	2.8	253
15	Another reason for concern: regional and global impacts on ecosystems for different levels of climate change. Global Environmental Change, 2004, 14, 219-228.	3.6	171
16	Climate-smart agriculture global research agenda: scientific basis for action. Agriculture and Food Security, 2014, 3, .	1.6	165
17	Sensitivity of terrestrial carbon storage to CO2-induced climate change: Comparison of four scenarios based on general circulation models. Climatic Change, 1992, 21, 367-384.	1.7	156
18	Mekong River flow and hydrological extremes under climate change. Hydrology and Earth System Sciences, 2016, 20, 3027-3041.	1.9	154

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19	Canopy gaps and establishment patterns of spruce (Picea abies (L.) Karst.) in two old-growth coniferous forests in central Sweden. Plant Ecology, 1991, 93, 157-165.	1.2	147
20	A multidisciplinary multi-scale framework for assessing vulnerabilities to global change. International Journal of Applied Earth Observation and Geoinformation, 2005, 7, 253-267.	1.4	137
21	Monitoring the world's agriculture. Nature, 2010, 466, 558-560.	13.7	127
22	A spatially explicit and quantitative vulnerability assessment of ecosystem service change in Europe. Regional Environmental Change, 2008, 8, 91-107.	1.4	118
23	Assessing the impacts of climate change on biodiversity: is below 2ÂÂ°C enough?. Climatic Change, 2019, 154, 351-365.	1.7	116
24	Collaboration between the natural, social and human sciences in Global Change Research. Environmental Science and Policy, 2013, 28, 25-35.	2.4	109
25	Mapping and modelling trade-offs and synergies between grazing intensity and ecosystem services in rangelands using global-scale datasets and models. Global Environmental Change, 2014, 29, 223-234.	3.6	103
26	The land-use projections and resulting emissions in the IPCC SRES scenarios scenarios as simulated by the IMAGE 2.2 model. Geo Journal, 2004, 61, 381-393.	1.7	102
27	Simulation modelling and risk assessment as tools to identify the impact of climate change on microbiological food safety â€“ The case study of fresh produce supply chain. Food Research International, 2010, 43, 1925-1935.	2.9	102
28	Determining the potential distribution of vegetation, crops and agricultural productivity. Water, Air, and Soil Pollution, 1994, 76, 133-161.	1.1	99
29	The Mekong's future flows under multiple drivers: How climate change, hydropower developments and irrigation expansions drive hydrological changes. Science of the Total Environment, 2019, 649, 601-609.	3.9	98
30	The global terrestrial carbon cycle. Water, Air, and Soil Pollution, 1993, 70, 19-37.	1.1	90
31	Socio-Environmental Systems (SES) Research: what have we learned and how can we use this information in future research programs. Current Opinion in Environmental Sustainability, 2016, 19, 160-168.	3.1	89
32	Fairly efficient, efficiently fair: Lessons from designing and testing payment schemes for ecosystem services in Asia. Ecosystem Services, 2015, 12, 16-28.	2.3	88
33	A multi-scale modelling approach for analysing landscape service dynamics. Journal of Environmental Management, 2012, 100, 86-95.	3.8	87
34	Vulnerability and adaptation of European farmers: a multi-level analysis of yield and income responses to climate variability. Regional Environmental Change, 2009, 9, 25.	1.4	81
35	Desertification in the Sahel: Towards better accounting for ecosystem dynamics in the interpretation of remote sensing images. Journal of Arid Environments, 2011, 75, 1164-1172.	1.2	77
36	Description and simulation of tree-layer composition and size distributions in a primaeval Picea-Pinus forest. Plant Ecology, 1987, 69, 147-156.	1.2	76

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37	The land cover and carbon cycle consequences of large-scale utilizations of biomass as an energy source. Global Environmental Change, 1996, 6, 335-357.	3.6	74
38	Thermal comfort in urban green spaces: a survey on a Dutch university campus. International Journal of Biometeorology, 2017, 61, 87-101.	1.3	74
39	Effects of urban trees on local outdoor microclimate: synthesizing field measurements by numerical modelling. Urban Ecosystems, 2015, 18, 1305-1331.	1.1	72
40	Sustainability constraints in determining European bioenergy potential: A review of existing studies and steps forward. Renewable and Sustainable Energy Reviews, 2017, 69, 719-734.	8.2	70
41	Simulating the carbon flux between the terrestrial environment and the atmosphere. Water, Air, and Soil Pollution, 1994, 76, 199-230.	1.1	69
42	Global models meet global policy. Global Environmental Change, 1996, 6, 255-259.	3.6	69
43	Nature: the many benefits of ecosystem services. Nature, 2006, 443, 749-749.	13.7	69
44	Global vegetation change predicted by the modified Budyko model. Climatic Change, 1993, 25, 59-83.	1.7	68
45	Assessing Impacts of Climate Change on Vegetation Using Climate Classification Systems. , 1993, , 190-217.		65
46	Developing a common strategy for integrative global environmental change research and outreach: the Earth System Science Partnership (ESSP). Current Opinion in Environmental Sustainability, 2009, 1, 4-13.	3.1	65
47	The importance of three centuries of land-use change for the global and regional terrestrial carbon cycle. Climatic Change, 2009, 97, 123-144.	1.7	59
48	The Impact of First-Generation Biofuels on the Depletion of the Global Phosphorus Reserve. Ambio, 2012, 41, 341-349.	2.8	58
49	On climate change skepticism and denial in tourism. Journal of Sustainable Tourism, 2015, 23, 4-25.	5.7	55
50	A comparison of baseline methodologies for 'Reducing Emissions from Deforestation and Degradation'. Carbon Balance and Management, 2009, 4, 4.	1.4	53
51	Projected environmental shifts under climate change: European trends and regional impacts. Environmental Conservation, 2008, 35, .	0.7	51
52	Why we need resilience thinking to meet societal challenges in bio-based production systems. Current Opinion in Environmental Sustainability, 2016, 23, 17-27.	3.1	51
53	CO2and albedo climate impacts of extratropical carbon and biomass plantations. Global Biogeochemical Cycles, 2006, 20, n/a-n/a.	1.9	50
54	Managing flood risks in the Mekong Delta: How to address emerging challenges under climate change and socioeconomic developments. Ambio, 2018, 47, 635-649.	2.8	49

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55	Governing for Transformative Change across the Biodiversityâ€“Climateâ€“Society Nexus. BioScience, 2022, 72, 684-704.	2.2	48
56	Impacts, adaptation and vulnerability to global environmental change: challenges and pathways for an action-oriented research agenda for middle-income and low-income countries. Current Opinion in Environmental Sustainability, 2010, 2, 364-374.	3.1	47
57	Effects of different management regimes on mangrove ecosystem services in Java, Indonesia. Ocean and Coastal Management, 2015, 116, 353-367.	2.0	47
58	The interaction of climate and land use in future terrestrial carbon storage and release. Water, Air, and Soil Pollution, 1993, 70, 595-614.	1.1	44
59	Quantifying the effectiveness of climate change mitigation through forest plantations and carbon sequestration with an integrated land-use model. Carbon Balance and Management, 2008, 3, 3.	1.4	43
60	Modeling the global society-biosphere-climate system: Part 2: Computed scenarios. Water, Air, and Soil Pollution, 1994, 76, 37-78.	1.1	42
61	The lessons learned from shifting from global-change research programmes to transdisciplinary sustainability science. Current Opinion in Environmental Sustainability, 2016, 19, 103-110.	3.1	42
62	Exploring earth system governance: A case study of floodplain management along the Tisza river in Hungary. Global Environmental Change, 2009, 19, 503-511.	3.6	41
63	A spatially explicit scenario-driven model of adaptive capacity to global change in Europe. Global Environmental Change, 2013, 23, 1211-1224.	3.6	41
64	Modelling the impact of future socio-economic and climate change scenarios on river microbial water quality. International Journal of Hygiene and Environmental Health, 2018, 221, 283-292.	2.1	40
65	Sensitivity analysis of a forest succession model. Ecological Modelling, 1991, 53, 247-262.	1.2	39
66	Responding to complex societal challenges: A decade of Earth System Science Partnership (ESSP) interdisciplinary research. Current Opinion in Environmental Sustainability, 2012, 4, 147-158.	3.1	39
67	Tropical tree growth driven by dry-season climate variability. Nature Geoscience, 2022, 15, 269-276.	5.4	38
68	An Integrated Coral Reef Ecosystem Model to Support Resource Management under a Changing Climate. PLoS ONE, 2015, 10, e0144165.	1.1	37
69	Science-Policy Interface: Beyond Assessments. Science, 2011, 333, 697-698.	6.0	36
70	Global-change research to understand, handle and solve problems of a Planet under Pressure. Current Opinion in Environmental Sustainability, 2012, 4, 1-2.	3.1	33
71	Effects of urban green infrastructure (UGI) on local outdoor microclimate during the growing season. Environmental Monitoring and Assessment, 2015, 187, 732.	1.3	33
72	How models can support ecosystem-based management of coral reefs. Progress in Oceanography, 2015, 138, 559-570.	1.5	33

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73	Defining the importance of including transient ecosystem responses to simulate C-cycle dynamics in a global change model. Global Change Biology, 2000, 6, 595-611.	4.2	32
74	Simulated Impacts of Climate Change on Current Farming Locations of Striped Catfish (Pangasianodon) Tj ETQq0 0 0 rgBT /Overlock 10	2.8	32
75	Effects of different management regimes on soil erosion and surface runoff in semi-arid to sub-humid rangelands. Journal of Arid Environments, 2015, 121, 100-111.	1.2	32
76	Comparison of environmental performance for different waste management scenarios in East Africa: The case of Kampala City, Uganda. Habitat International, 2014, 44, 349-357.	2.3	31
77	Evaluating changes in land cover and their importance for global change. Trends in Ecology and Evolution, 1995, 10, 76-81.	4.2	29
78	Special Paper: A Global Vegetation Model Based on the Climatological Approach of Budyko. Journal of Biogeography, 1993, 20, 129.	1.4	27
79	Wood waste minimization in the timber sector of Ghana: a systems approach to reduce environmental impact. Journal of Cleaner Production, 2012, 26, 67-78.	4.6	27
80	A stakeholder dialogue on European vulnerability. Regional Environmental Change, 2008, 8, 109-124.	1.4	26
81	Inventory analysis of the timber industry in Ghana. International Journal of Life Cycle Assessment, 2010, 15, 715-725.	2.2	26
82	Forty Years of Climate and Land-Cover Change and its Effects on Tourism Resources in Kilimanjaro National Park. Tourism Planning and Development, 2019, 16, 235-253.	1.3	25
83	Modelling for species and habitats: new opportunities for problem solving. Science of the Total Environment, 1999, 240, 51-73.	3.9	24
84	Denying bogus skepticism in climate change and tourism research. Tourism Management, 2015, 47, 352-356.	5.8	24
85	Impact of Climate Change on the Technical Efficiency of Striped Catfish, Pangasianodon hypophthalmus, Farming in the Mekong Delta, Vietnam. Journal of the World Aquaculture Society, 2018, 49, 570-581.	1.2	24
86	Quantifying feedback processes in the response of the terrestrial carbon cycle to global change: The modeling approach of image-2. Water, Air, and Soil Pollution, 1993, 70, 615-628.	1.1	23
87	The local impacts of climate change in the Ferlo, Western Sahel. Climatic Change, 2009, 93, 465-483.	1.7	23
88	The determination of an optimal waste management scenario for Kampala, Uganda. Waste Management and Research, 2013, 31, 1203-1216.	2.2	23
89	The impact of land-cover modification on the June meteorology of China since 1700, simulated using a regional climate model. International Journal of Climatology, 2003, 23, 511-527.	1.5	22
90	Climate Change Threatens Major Tourist Attractions and Tourism in Serengeti National Park, Tanzania. Climate Change Management, 2017, , 375-392.	0.6	22

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91	Preparing suitable climate scenario data to assess impacts on local food safety. Food Research International, 2015, 68, 31-40.	2.9	21
92	Tropical Montane Cloud Forests in the Orinoco river basin: The role of soil organic layers in water storage and release. Geoderma, 2017, 298, 14-26.	2.3	21
93	Tropical Montane Cloud Forests: Hydrometeorological variability in three neighbouring catchments with different forest cover. Journal of Hydrology, 2017, 552, 151-167.	2.3	21
94	Determining sectoral and regional sensitivity to climate and socio-economic change in Europe using impact response surfaces. Regional Environmental Change, 2019, 19, 679-693.	1.4	21
95	Boreal forest carbon stocks and wood supply: past, present and future responses to changing climate, agriculture and species availability. Agricultural and Forest Meteorology, 1997, 84, 137-151.	1.9	20
96	Modelling recovery from soil acidification in European forests under climate change. Science of the Total Environment, 2009, 407, 5663-5673.	3.9	20
97	The Value of Conceptual Models in Coping with Complexity and Interdisciplinarity in Environmental Sciences Education. BioScience, 2011, 61, 802-814.	2.2	20
98	No time for smokescreen skepticism: A rejoinder to Shani and Arad. Tourism Management, 2015, 47, 341-347.	5.8	19
99	The Importance of Feedback Processes and Vegetation Transition in the Terrestrial Carbon Cycle. Journal of Biogeography, 1995, 22, 805.	1.4	18
100	LCA of the timber sector in Ghana: preliminary life cycle impact assessment (LCIA). International Journal of Life Cycle Assessment, 2011, 16, 625-638.	2.2	18
101	Comparison of ecosystem services provided by grasslands with different utilization patterns in Chinaâ€™s Inner Mongolia Autonomous Region. Journal of Chinese Geography, 2018, 28, 1399-1414.	1.5	18
102	Potential biodiversity change in Central Asian grasslands: scenarios for the impact of climate and land-use change. Regional Environmental Change, 2020, 20, 1.	1.4	17
103	Managing the current and future supply of ecosystem services in the Hungarian and Romanian Tisza River Basin. Regional Environmental Change, 2012, 12, 689-700.	1.4	16
104	Effective monitoring of agriculture: a response. Journal of Environmental Monitoring, 2012, 14, 738.	2.1	16
105	Transitioning to Low-Carbon Economies under the 2030 Agenda: Minimizing Trade-Offs and Enhancing Co-Benefits of Climate-Change Action for the SDGs. Sustainability, 2021, 13, 10774.	1.6	15
106	Simulation and future projection of succession in a Swedish broad-leaved forest. Forest Ecology and Management, 1992, 48, 305-319.	1.4	14
107	The scientific motivation of the internationally agreed â€˜well below 2 Â°Câ€™ climate protection target: a historical perspective. Current Opinion in Environmental Sustainability, 2017, 26-27, 134-142.	3.1	14
108	The Role of Forest Soils in the Global Carbon Cycle. , 2006, , 503-525.		13

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109	The biological component of the simulation model for boreal forest dynamics. , 1992, , 428-445.		13
110	The dendrochronological potential of Baikiaea plurijuga in Zambia. Dendrochronologia, 2017, 41, 65-77.	1.0	10
111	BALANCE: an attempt to assess climate change impacts in the Barents Sea Region. Climatic Change, 2008, 87, 1-6.	1.7	9
112	Understanding land-use change to reconstruct, describe or predict changes in land cover. Geo Journal, 2004, 61, 305-307.	1.7	7
113	Sustainability of forestry and timber industry in Ghana. International Forestry Review, 2010, 12, 383-395.	0.3	7
114	Below and above-ground carbon distribution along a rainfall gradient. A case of the Zambezi teak forests, Zambia. Acta Oecologica, 2018, 87, 45-57.	0.5	7
115	Can zoning resolve nature use conflicts? The case of the Numto Nature Park in the Russian Arctic. Journal of Environmental Planning and Management, 2018, 61, 1674-1700.	2.4	7
116	A framework to identify appropriate spatial and temporal scales for modeling N flows from watersheds. Ecological Modelling, 2008, 212, 256-272.	1.2	6
117	Exploring the climate change concerns of striped catfish producers in the Mekong Delta, Vietnam. SpringerPlus, 2015, 4, 46.	1.2	6
118	Land Use and Cover Change (LUCC) Open Science Meeting Royal Netherlands Academy of Arts and Sciences, Amsterdam, The Netherlands, 29â€“31 January 1996. Land Use Policy, 1996, 13, 332-334.	2.5	5
119	Tropical Montane Cloud Forests in the Orinoco River basin: Inferring fog interception from through-fall dynamics. Agricultural and Forest Meteorology, 2018, 260-261, 17-30.	1.9	5
120	Editorial overview: How to promote transdisciplinary, evidence-based sustainability solutions?. Current Opinion in Environmental Sustainability, 2017, 29, xii-xv.	3.1	4
121	Systems Models of Terrestrial Carbon Cycling. , 1995, , 129-151.		4
122	Global and regional impacts of stabilizing atmospheric CO2. Mitigation and Adaptation Strategies for Global Change, 1997, 1, 341-361.	1.0	3
123	Modelling the response of net primary productivity of the Zambezi teak forests to climate change along a rainfall gradient in Zambia. Biogeosciences, 2019, 16, 3853-3867.	1.3	3
124	Stabilizing greenhouse gases: Global and regional consequences. Studies in Environmental Science, 1995, , 135-149.	0.0	2
125	Overview of IMAGE 2.0: An integrated model of climate change and the global environment. Studies in Environmental Science, 1995, 65, 1395-1399.	0.0	2
126	Determining the global significance of local and regional mitigation strategies: Setting the scene with global integrated assessment models. Environmental Monitoring and Assessment, 1995, 38-38, 205-216.	1.3	2

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127	Effects of Global Change on Agricultural Land Use: Scaling Up from Physiological Processes to Ecosystem Dynamics. , 1997, , 415-452.		2
128	Scientific Challenges for Anthropogenic Research in the 21st Century: Problems of Scale. , 2006, , 249-262.		2
129	Chapter Seven Scale Issues in Environmental Scenario Development. Developments in Integrated Environmental Assessment, 2008, , 151-168.	0.0	2
130	Data for developing allometric models and evaluating carbon stocks of the Zambezi Teak Forests in Zambia. Data in Brief, 2018, 17, 1361-1373.	0.5	2
131	The Future of Biodiversity in a Changing World. Ecological Studies, 2001, , 1-4.	0.4	2
132	Changes in Land use and land cover: A global perspective. Trends in Ecology and Evolution, 1995, 10, 258-259.	4.2	1
133	Training future experts in â€œbiodiversity and ecosystem servicesâ€• a progress report. Regional Environmental Change, 2008, 8, 125-134.	1.4	1
134	Biological diversity and climate change. , 2021, , 541-559.		1
135	Global environmental change and health: integrating knowledge from natural, socioeconomic and medical sciences. , 0, , 15-26.		1
136	Opportunities and Constraints for Climate Adaptation in Regional Water and Land Use Planning. Climate Change Management, 2011, , 669-692.	0.6	1
137	The Interaction of Climate and Land Use in Future Terrestrial Carbon Storage and Release. , 1993, , 595-614.		1
138	The Use of Global-Change Scenarios to Determine Changes in Species and Habitats. Ecological Studies, 2001, , 23-45.	0.4	1
139	Remote sensing based modelling of the terrestrial carbon cycle of Europe. Studies in Environmental Science, 1995, 65, 567-570.	0.0	0
140	Global and Regional Impacts of Stabilizing Atmospheric CO2. Mitigation and Adaptation Strategies for Global Change, 1995, 1, 341-361.	1.0	0
141	Response to commentary â€˜towards more meaningful scenarios of biodiversity responses to land-use change in Central Asia. Regional Environmental Change, 2020, 20, 1.	1.4	0