Navin Ramankutty

List of Publications by Year
in descending order

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125	53,626	9234 74	17546 121
papers	citations	h-index	g-index

131	131	131	48449
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Ten facts about land systems for sustainability. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	157
2	Functional connectivity of the worldâ€™s protected areas. Science, 2022, 376, 1101-1104.	6.0	62
3	On the relative importance of climatic and non-climatic factors in crop yield models. Climatic Change, 2022, 173, .	1.7	3
4	The global divide in data-driven farming. Nature Sustainability, 2021, 4, 154-160.	11.5	65
5	Higher yields and more biodiversity on smaller farms. Nature Sustainability, 2021, 4, 651-657.	11.5	108
6	Global option space for organic agriculture is delimited by nitrogen availability. Nature Food, 2021, 2, 363-372.	6.2	58
7	A review of global gridded cropping system data products. Environmental Research Letters, 2021, 16, 093005.	2.2	26
8	Beyond productivism versus agroecology: lessons for sustainable food systems from Lovinsâ€™ soft path energy policies. Environmental Research Letters, 2021, 16, 091003.	2.2	5
9	Spatial Correlations Don't Predict Changes in Agricultural Ecosystem Services: A Canada-Wide Case Study. Frontiers in Sustainable Food Systems, 2020, 4, .	1.8	6
10	Livestock policy for sustainable development. Nature Food, 2020, 1, 160-165.	6.2	97
11	Power tariffs for groundwater irrigation in India: A comparative analysis of the environmental, equity, and economic tradeoffs. World Development, 2020, 128, 104836.	2.6	31
12	Perennial Staple Crops: Yields, Distribution, and Nutrition in the Global Food System. Frontiers in Sustainable Food Systems, 2020, 4, .	1.8	19
13	Scienceâ€“graphic art partnerships to increase research impact. Communications Biology, 2019, 2, 295.	2.0	24
14	Tradeâ€offs in the performance of alternative farming systems. Agricultural Economics (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 22	2.0	16
15	Interactions between land systems and food systems. Current Opinion in Environmental Sustainability, 2019, 38, 60-67.	3.1	30
16	Sustainable intensification in land systems: trade-offs, scales, and contexts. Current Opinion in Environmental Sustainability, 2019, 38, 37-43.	3.1	48
17	Synchronized failure of global crop production. Nature Ecology and Evolution, 2019, 3, 780-786.	3.4	75
18	Shifts in the abiotic and biotic environment of cultivated sunflower under future climate change. OCL - Oilseeds and Fats, Crops and Lipids, 2019, 26, 9.	0.6	11

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19	Market-mediated responses confound policies to limit deforestation from oil palm expansion in Malaysia and Indonesia. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 19193-19199.	3.3	54
20	Leveraging total factor productivity growth for sustainable and resilient farming. Nature Sustainability, 2019, 2, 22-28.	11.5	93
21	Trends in Global Agricultural Land Use: Implications for Environmental Health and Food Security. Annual Review of Plant Biology, 2018, 69, 789-815.	8.6	559
22	The Impacts of Climate Change on Crop Yields in Tanzania: Comparing an Empirical and a Process-Based Model. , 2018, , 149-163.		0
23	Increasing expansion of large-scale crop production onto deforested land in sub-Andean South America. Environmental Research Letters, 2018, 13, 084021.	2.2	37
24	How much of the world's food do smallholders produce?. Global Food Security, 2018, 17, 64-72.	4.0	274
25	An open-access dataset of crop production by farm size from agricultural censuses and surveys. Data in Brief, 2018, 19, 1970-1988.	0.5	8
26	The challenge of feeding the world while conserving half the planet. Nature Sustainability, 2018, 1, 409-412.	11.5	118
27	What is this thing called organic? â€“ How organic farming is codified in regulations. Food Policy, 2017, 68, 10-20.	2.8	139
28	Many shades of grayâ€”The context-dependent performance of organic agriculture. Science Advances, 2017, 3, e1602638.	4.7	294
29	Agricultural land-use change in Kerala, India: Perspectives from above and below the canopy. Agriculture, Ecosystems and Environment, 2017, 245, 1-10.	2.5	21
30	Detection of cropland field parcels from Landsat imagery. Remote Sensing of Environment, 2017, 201, 165-180.	4.6	92
31	The Conventional Versus Alternative Agricultural Divide: A Response to Garibaldi et al.. Trends in Ecology and Evolution, 2017, 32, 720-721.	4.2	10
32	Latin American oil palm follows an unfamiliar route to avoid deforestation. Environmental Research Letters, 2017, 12, 041001.	2.2	1
33	Agriculture production as a major driver of the Earth system exceeding planetary boundaries. Ecology and Society, 2017, 22, .	1.0	576
34	Modelling long-term impacts of mountain pine beetle outbreaks on merchantable biomass, ecosystem carbon, albedo, and radiative forcing. Biogeosciences, 2016, 13, 5277-5295.	1.3	11
35	Land-use regime shifts: an analytical framework and agenda for future land-use research. Ecology and Society, 2016, 21, .	1.0	50
36	Implementation of aÂMarauding Insect Module (MIM, version 1.0) in the Integrated Biosphere Simulator (IBIS, version 2.6b4) dynamic vegetationâ€“land surface model. Geoscientific Model Development, 2016, 9, 1243-1261.	1.3	14

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37	Changes in yield variability of major crops for 1981â€“2010 explained by climate change. Environmental Research Letters, 2016, 11, 034003.	2.2	155
38	Investigating the Effects of Subgrid Cell Dynamic Heterogeneity on the Large-Scale Modeling of Albedo in Boreal Forests*. Earth Interactions, 2016, 20, 1-23.	0.7	5
39	Subnational distribution of average farm size and smallholder contributions to global food production. Environmental Research Letters, 2016, 11, 124010.	2.2	271
40	Hidden linkages between urbanization and food systems. Science, 2016, 352, 943-945.	6.0	355
41	A multi-dimensional metric for facilitating sustainable food choices in campus cafeterias. Journal of Cleaner Production, 2016, 135, 1351-1362.	4.6	21
42	Influence of extreme weather disasters on global crop production. Nature, 2016, 529, 84-87.	13.7	2,233
43	Cropland/pastureland dynamics and the slowdown of deforestation in Latin America. Environmental Research Letters, 2015, 10, 034017.	2.2	182
44	Carbon Cycling, Climate Regulation, and Disturbances in Canadian Forests: Scientific Principles for Management. Land, 2015, 4, 83-118.	1.2	4
45	A global data set of the extent of irrigated land from 1900 to 2005. Hydrology and Earth System Sciences, 2015, 19, 1521-1545.	1.9	301
46	Urbanization and the loss of prime farmland: a case study in the Calgaryâ€“Edmonton corridor of Alberta. Regional Environmental Change, 2015, 15, 881-893.	1.4	84
47	A global assessment of the carbon cycle and temperature responses to major changes in future fire regime. Climatic Change, 2015, 133, 179-192.	1.7	25
48	How do weather and climate influence cropping area and intensity?. Global Food Security, 2015, 4, 46-50.	4.0	299
49	Improved global cropland data as an essential ingredient for food security. Global Food Security, 2015, 4, 37-45.	4.0	103
50	Urban agriculture and food security: A critique based on an assessment of urban land constraints. Global Food Security, 2015, 4, 8-15.	4.0	164
51	Urban agriculture: a global analysis of the space constraint to meet urban vegetable demand. Environmental Research Letters, 2014, 9, 064025.	2.2	125
52	Mapping Asian Cropping Intensity With MODIS. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 3373-3379.	2.3	54
53	Global market integration increases likelihood that a future African Green Revolution could increase crop land use and CO ₂ emissions. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 13799-13804.	3.3	107
54	Direct human influence on atmospheric CO2 seasonality from increased cropland productivity. Nature, 2014, 515, 398-401.	13.7	118

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55	Global crop yield response to extreme heat stress under multiple climate change futures. Environmental Research Letters, 2014, 9, 034011.	2.2	474
56	Land sparing or land sharing: context dependent. Frontiers in Ecology and the Environment, 2013, 11, 178-178.	1.9	10
57	The Need for Improved Maps of Global Cropland. Eos, 2013, 94, 31-32.	0.1	66
58	Mapping Crop Types, Irrigated Areas, and Cropping Intensities in Heterogeneous Landscapes of Southern India Using Multi-Temporal Medium-Resolution Imagery. Photogrammetric Engineering and Remote Sensing, 2012, 78, 815-827.	0.3	23
59	Carbon emissions from land use and land-cover change. Biogeosciences, 2012, 9, 5125-5142.	1.3	839
60	Recent patterns of crop yield growth and stagnation. Nature Communications, 2012, 3, 1293.	5.8	1,146
61	Closing yield gaps through nutrient and water management. Nature, 2012, 490, 254-257.	13.7	2,055
62	Can intensive farming save nature?. Frontiers in Ecology and the Environment, 2012, 10, 455-455.	1.9	41
63	Comparing the yields of organic and conventional agriculture. Nature, 2012, 485, 229-232.	13.7	1,463
64	Solutions for a cultivated planet. Nature, 2011, 478, 337-342.	13.7	5,821
65	Climate variability and crop production in Tanzania. Agricultural and Forest Meteorology, 2011, 151, 449-460.	1.9	354
66	Climate volatility and poverty vulnerability in Tanzania. Global Environmental Change, 2011, 21, 46-55.	3.6	111
67	Diagnosing the uncertainty and detectability of emission reductions for REDD + under current capabilities: an example for Panama. Environmental Research Letters, 2011, 6, 024005.	2.2	59
68	Agronomic phosphorus imbalances across the world's croplands. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 3086-3091.	3.3	654
69	MODIS Collection 5 global land cover: Algorithm refinements and characterization of new datasets. Remote Sensing of Environment, 2010, 114, 168-182.	4.6	2,752
70	Anthropogenic transformation of the biomes, 1700 to 2000. Global Ecology and Biogeography, 2010, 19, 589-606.	2.7	641
71	Crop planting dates: an analysis of global patterns. Global Ecology and Biogeography, 2010, 19, 607-620.	2.7	431
72	Mind the gap: how do climate and agricultural management explain the â€˜yield gapâ€™ of croplands around the world?. Global Ecology and Biogeography, 2010, 19, 769-782.	2.7	408

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73	Interactions between nitrogen deposition, land cover conversion, and climate change determine the contemporary carbon balance of Europe. Biogeosciences, 2010, 7, 2749-2764.	1.3	53
74	Tropical forests were the primary sources of new agricultural land in the 1980s and 1990s. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 16732-16737.	3.3	1,355
75	Characterizing the Spatial Patterns of Global Fertilizer Application and Manure Production. Earth Interactions, 2010, 14, 1-22.	0.7	335
76	Prevailing Myths About Agricultural Abandonment and Forest Regrowth in the United States. Annals of the American Association of Geographers, 2010, 100, 502-512.	3.0	95
77	The role of pasture and soybean in deforestation of the Brazilian Amazon. Environmental Research Letters, 2010, 5, 024002.	2.2	416
78	Producer and consumer responsibility for greenhouse gas emissions from agricultural productionâ€"a perspective from the Brazilian Amazon. Environmental Research Letters, 2009, 4, 044010.	2.2	47
79	Carbon payback times for crop-based biofuel expansion in the tropics: the effects of changing yield and technology. Environmental Research Letters, 2008, 3, 034001.	2.2	333
80	Putting people in the map: anthropogenic biomes of the world. Frontiers in Ecology and the Environment, 2008, 6, 439-447.	1.9	1,308
81	Farming the planet: 2. Geographic distribution of crop areas, yields, physiological types, and net primary production in the year 2000. Global Biogeochemical Cycles, 2008, 22, .	1.9	1,259
82	Farming the planet: 1. Geographic distribution of global agricultural lands in the year 2000. Global Biogeochemical Cycles, 2008, 22, .	1.9	1,328
83	Land-Use Change and Global Food Production. , 2008, , 23-40.		7
84	Our share of the planetary pie. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 12585-12586.	3.3	82
85	Global trends in visibility: implications for dust sources. Atmospheric Chemistry and Physics, 2007, 7, 3309-3339.	1.9	222
86	Global agricultural land-use data for integrated assessment modeling. , 2007, , 252-265.		7
87	Biogeophysical effects of land use on climate: Model simulations of radiative forcing and large-scale temperature change. Agricultural and Forest Meteorology, 2007, 142, 216-233.	1.9	316
88	Modeling the hydrological impact of land-use change in West Africa. Journal of Hydrology, 2007, 337, 258-268.	2.3	183
89	From Miami to Madison: Investigating the relationship between climate and terrestrial net primary production. Global Biogeochemical Cycles, 2007, 21, .	1.9	58
90	Abrupt changes in rainfall during the twentieth century. Geophysical Research Letters, 2007, 34, .	1.5	106

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91	Amazonia revealed: forest degradation and loss of ecosystem goods and services in the Amazon Basin. Frontiers in Ecology and the Environment, 2007, 5, 25-32.	1.9	439
92	Challenges to estimating carbon emissions from tropical deforestation. Global Change Biology, 2007, 13, 51-66.	4.2	323
93	Feedbacks between agriculture and climate: An illustration of the potential unintended consequences of human land use activities. Global and Planetary Change, 2006, 54, 79-93.	1.6	57
94	Modeling Global and Regional Net Primary Production under Elevated Atmospheric CO2: On a Potential Source of Uncertainty. Earth Interactions, 2006, 10, 1-20.	0.7	11
95	Biogeophysical effects of historical land cover changes simulated by six Earth system models of intermediate complexity. Climate Dynamics, 2006, 26, 587-600.	1.7	220
96	Trends and Variability in U.S. Corn Yields Over the Twentieth Century. Earth Interactions, 2005, 9, 1-29.	0.7	107
97	Investigation of Hydrological Variability in West Africa Using Land Surface Models. Journal of Climate, 2005, 18, 3173-3188.	1.2	49
98	A Synthesis of Information on Rapid Land-cover Change for the Period 1981â€“2000. BioScience, 2005, 55, 115.	2.2	367
99	Global Consequences of Land Use. Science, 2005, 309, 570-574.	6.0	9,451
100	Land cover change over the last three centuries due to human activities: The availability of new global data sets. Geo Journal, 2004, 61, 335-344.	1.7	206
101	Geographic distribution of major crops across the world. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	1.9	545
102	Croplands in West Africa: A Geographically Explicit Dataset for Use in Models. Earth Interactions, 2004, 8, 1-22.	0.7	40
103	Reconciling apparent inconsistencies in estimates of terrestrial CO2 sources and sinks. Tellus, Series B: Chemical and Physical Meteorology, 2003, 55, 345-363.	0.8	105
104	Green surprise? How terrestrial ecosystems could affect earthâ€™s climate. Frontiers in Ecology and the Environment, 2003, 1, 38-44.	1.9	96
105	Green Surprise? How Terrestrial Ecosystems Could Affect Earth's Climate. Frontiers in Ecology and the Environment, 2003, 1, 38.	1.9	181
106	Physiology on a Landscape Scale: Plant-Animal Interactions. Integrative and Comparative Biology, 2002, 42, 431-453.	0.9	157
107	People on the Land: Changes in Global Population and Croplands during the 20thCentury. Ambio, 2002, 31, 251-257.	2.8	155
108	Long-term variations of climate and carbon fluxes over the Amazon basin. Geophysical Research Letters, 2002, 29, 33-1-33-4.	1.5	71

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109	The global distribution of cultivable lands: current patterns and sensitivity to possible climate change. Global Ecology and Biogeography, 2002, 11, 377-392.	2.7	468
110	People on the land: changes in global population and croplands during the 20th century. Ambio, 2002, 31, 251-7.	2.8	18
111	Carbon balance of the terrestrial biosphere in the Twentieth Century: Analyses of CO2, climate and land use effects with four process-based ecosystem models. Global Biogeochemical Cycles, 2001, 15, 183-206.	1.9	680
112	Global response of terrestrial ecosystem structure and function to CO2 and climate change: results from six dynamic global vegetation models. Global Change Biology, 2001, 7, 357-373.	4.2	1,718
113	Testing the performance of a dynamic global ecosystem model: Water balance, carbon balance, and vegetation structure. Global Biogeochemical Cycles, 2000, 14, 795-825.	1.9	608
114	Calculating Climate Effects on Birds and Mammals: Impacts on Biodiversity, Conservation, Population Parameters, and Global Community Structure1. American Zoologist, 2000, 40, 597-630.	0.7	102
115	Temperature Oscillations in the North Atlantic. Science, 2000, 289, 547b-548.	6.0	5
116	Estimating historical changes in land cover:North American croplands from 1850 to 1992. Global Ecology and Biogeography, 1999, 8, 381-396.	2.7	180
117	Estimating historical changes in global land cover: Croplands from 1700 to 1992. Global Biogeochemical Cycles, 1999, 13, 997-1027.	1.9	1,647
118	Characterizing patterns of global land use: An analysis of global croplands data. Global Biogeochemical Cycles, 1998, 12, 667-685.	1.9	335
119	An integrated biosphere model of land surface processes, terrestrial carbon balance, and vegetation dynamics. Global Biogeochemical Cycles, 1996, 10, 603-628.	1.9	1,106
120	A 65â€“70 Year Oscillation in Observed Surface Temperatures. , 1996, , 305-316.		0
121	Is the recently reported 65- to 70-year surface-temperature oscillation the result of climatic noise?. Journal of Geophysical Research, 1995, 100, 13767.	3.3	27
122	An oscillation in the global climate system of period 65â€“70 years. Nature, 1994, 367, 723-726.	13.7	1,329
123	Low-frequency oscillation. Nature, 1994, 372, 508-509.	13.7	15
124	Have Solar-Irradiance Variations Influenced Climate?. , 1994, , 493-506.		0
125	Implications for global warming of intercycle solar irradiance variations. Nature, 1992, 360, 330-333.	13.7	107