Philip J Ward

List of Publications by Citations

131 papers	9,254 citations	50 h-index	95 g-index
142 ext. papers	11,554 ext. citations	6.5 avg, IF	6.34 L-index

#	Paper	IF	Citations
131	Lost food, wasted resources: global food supply chain losses and their impacts on freshwater, cropland, and fertiliser use. *Science of the Total Environment*, **2012**, 438, 477-89	10.2	674
130	Future climate risk from compound events. *Nature Climate Change*, **2018**, 8, 469-477	21.4	530
129	Global exposure to river and coastal flooding: Long term trends and changes. *Global Environmental Change*, **2012**, 22, 823-835	10.1	458
128	Global drivers of future river flood risk. *Nature Climate Change*, **2016**, 6, 381-385	21.4	430
127	The world's road to water scarcity: shortage and stress in the 20th century and pathways towards sustainability. *Scientific Reports*, **2016**, 6, 38495	4.9	329
126	Increasing stress on disaster-risk finance due to large floods. *Nature Climate Change*, **2014**, 4, 264-268	21.4	320
125	Is physical water scarcity a new phenomenon? Global assessment of water shortage over the last two millennia. *Environmental Research Letters*, **2010**, 5, 034006	6.2	275
124	Comparative flood damage model assessment: towards a European approach. *Natural Hazards and Earth System Sciences*, **2012**, 12, 3733-3752	3.9	264
123	Twenty-three unsolved problems in hydrology (UPH) – a community perspective. *Hydrological Sciences Journal*, **2019**, 64, 1141-1158	3.5	259
122	A framework for global river flood risk assessments. *Hydrology and Earth System Sciences*, **2013**, 17, 1871-1892	5.5	255
121	Assessing flood risk at the global scale: model setup, results, and sensitivity. *Environmental Research Letters*, **2013**, 8, 044019	6.2	221
120	Declining vulnerability to river floods and the global benefits of adaptation. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, E2271-80	11.5	209
119	A global reanalysis of storm surges and extreme sea levels. *Nature Communications*, **2016**, 7, 11969	17.4	201
118	Future changes in Mekong River hydrology: impact of climate change and reservoir operation on discharge. *Hydrology and Earth System Sciences*, **2012**, 16, 4603-4619	5.5	194
117	Floods and climate: emerging perspectives for flood risk assessment and management. *Natural Hazards and Earth System Sciences*, **2014**, 14, 1921-1942	3.9	184
116	Water scarcity hotspots travel downstream due to human interventions in the 20th and 21st century. *Nature Communications*, **2017**, 8, 15697	17.4	177
115	Flood risk and adaptation strategies under climate change and urban expansion: A probabilistic analysis using global data. *Science of the Total Environment*, **2015**, 538, 445-57	10.2	164

114	Strong influence of El Niño Southern Oscillation on flood risk around the world. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 15659-64	11.5	164
113	A global framework for future costs and benefits of river-flood protection in urban areas. *Nature Climate Change*, **2017**, 7, 642-646	21.4	163
112	How close do we live to water? A global analysis of population distance to freshwater bodies. *PLoS ONE*, **2011**, 6, e20578	3.7	149
111	Flood risk assessments at different spatial scales. *Mitigation and Adaptation Strategies for Global Change*, **2015**, 20, 865-890	3.9	148
110	FLOPROS: an evolving global database of flood protection standards. *Natural Hazards and Earth System Sciences*, **2016**, 16, 1049-1061	3.9	125
109	Adaptation to flood risk: Results of international paired flood event studies. *Earth's Future*, **2017**, 5, 953-965	7.9	111
108	The impact of land use and climate change on late Holocene and future suspended sediment yield of the Meuse catchment. *Geomorphology*, **2009**, 103, 389-400	4.3	105
107	Sensitivity of river discharge to ENSO. *Geophysical Research Letters*, **2010**, 37, n/a-n/a	4.9	102
106	Over the hills and further away from coast: global geospatial patterns of human and environment over the 20th–21st centuries. *Environmental Research Letters*, **2016**, 11, 034010	6.2	99
105	How are flood risk estimates affected by the choice of return-periods?. *Natural Hazards and Earth System Sciences*, **2011**, 11, 3181-3195	3.9	99
104	The credibility challenge for global fluvial flood risk analysis. *Environmental Research Letters*, **2016**, 11, 094014	6.2	96
103	Annual flood sensitivities to El Niño–Southern Oscillation at the global scale. *Hydrology and Earth System Sciences*, **2014**, 18, 47-66	5.5	95
102	Coastal inundation and damage exposure estimation: a case study for Jakarta. *Natural Hazards*, **2011**, 56, 899-916	3	95
101	Governance of flood risk management in a time of climate change: the cases of Jakarta and Rotterdam. *Environmental Politics*, **2013**, 22, 518-536	3.8	90
100	Changing mechanism of global water scarcity events: Impacts of socioeconomic changes and inter-annual hydro-climatic variability. *Global Environmental Change*, **2015**, 32, 18-29	10.1	84
99	Dependence between high sea-level and high river discharge increases flood hazard in global deltas and estuaries. *Environmental Research Letters*, **2018**, 13, 084012	6.2	84
98	Disaster risk, climate change, and poverty: assessing the global exposure of poor people to floods and droughts. *Environment and Development Economics*, **2018**, 23, 328-348	1.8	79
97	Community responses and adaptation strategies toward flood hazard in Jakarta, Indonesia. *Natural Hazards*, **2015**, 75, 1127-1144	3	79

96	Flood risk assessment for delta mega-cities: a case study of Jakarta. *Natural Hazards*, **2015**, 75, 389-413	3	74
95	Strong increases in flood frequency and discharge of the River Meuse over the late Holocene: impacts of long-term anthropogenic land use change and climate variability. *Hydrology and Earth System Sciences*, **2008**, 12, 159-175	5.5	73
94	Compound simulation of fluvial floods and storm surges in a global coupled river-coast flood model: Model development and its application to 2007 Cyclone Sidr in Bangladesh. *Journal of Advances in Modeling Earth Systems*, **2017**, 9, 1847-1862	7.1	69
93	Potential of semi-structural and non-structural adaptation strategies to reduce future flood risk: case study for the Meuse. *Natural Hazards and Earth System Sciences*, **2012**, 12, 3455-3471	3.9	67
92	Human impact parameterizations in global hydrological models improve estimates of monthly discharges and hydrological extremes: a multi-model validation study. *Environmental Research Letters*, **2018**, 13, 055008	6.2	64
91	Modeling the sensitivity of sediment and water runoff dynamics to Holocene climate and land use changes at the catchment scale. *Geomorphology*, **2011**, 126, 18-31	4.3	64
90	Measuring compound flood potential from river discharge and storm surge extremes at the global scale. *Natural Hazards and Earth System Sciences*, **2020**, 20, 489-504	3.9	60
89	River flood risk in Jakarta under scenarios of future change. *Natural Hazards and Earth System Sciences*, **2016**, 16, 757-774	3.9	59
88	Sensitivity of global river discharges under Holocene and future climate conditions. *Geophysical Research Letters*, **2006**, 33,	4.9	54
87	Why We Can No Longer Ignore Consecutive Disasters. *Earth's Future*, **2020**, 8, e2019EF001425	7.9	53
86	Economic motivation for raising coastal flood defenses in Europe. *Nature Communications*, **2020**, 11, 2119	17.4	52
85	A comparison of two global datasets of extreme sea levels and resulting flood exposure. *Earth's Future*, **2017**, 5, 379-392	7.9	51
84	Towards a global water scarcity risk assessment framework: incorporation of probability distributions and hydro-climatic variability. *Environmental Research Letters*, **2016**, 11, 024006	6.2	50
83	Hess Opinions: An interdisciplinary research agenda to explore the unintended consequences of structural flood protection. *Hydrology and Earth System Sciences*, **2018**, 22, 5629-5637	5.5	50
82	Increasing flood exposure in the Netherlands: implications for risk financing. *Natural Hazards and Earth System Sciences*, **2014**, 14, 1245-1255	3.9	49
81	Review article: Natural hazard risk assessments at the global scale. *Natural Hazards and Earth System Sciences*, **2020**, 20, 1069-1096	3.9	45
80	The role of climate variability in extreme floods in Europe. *Environmental Research Letters*, **2017**, 12, 084012	6.2	41
79	Two-thirds of global cropland area impacted by climate oscillations. *Nature Communications*, **2018**, 9, 1257	17.4	38

78	Hard or soft flood adaptation? Advantages of a hybrid strategy for Shanghai. *Global Environmental Change*, **2020**, 61, 102037	10.1	37
77	A first collective validation of global fluvial flood models for major floods in Nigeria and Mozambique. *Environmental Research Letters*, **2018**, 13, 104007	6.2	36
76	Disaster Risk, Climate Change, and Poverty: Assessing the Global Exposure of Poor People to Floods and Droughts. *Policy Research Working Papers*, **2015**,	2.1	34
75	Global modeling of tropical cyclone storm surges using high-resolution forecasts. *Climate Dynamics*, **2019**, 52, 5031-5044	4.2	34
74	Verification of a coupled climate-hydrological model against Holocene palaeohydrological records. *Global and Planetary Change*, **2007**, 57, 283-300	4.2	33
73	Improving predictions and management of hydrological extremes through climate services. *Climate Services*, **2016**, 1, 6-11	3.8	33
72	The effect of surge on riverine flood hazard and impact in deltas globally. *Environmental Research Letters*, **2020**, 15, 104007	6.2	32
71	Lessons learnt from adaptation planning in four deltas and coastal cities. *Journal of Water and Climate Change*, **2015**, 6, 711-728	2.3	30
70	The effect of climate type on timescales of drought propagation in an ensemble of global hydrological models. *Hydrology and Earth System Sciences*, **2018**, 22, 4649-4665	5.5	30
69	Global-scale benefit□ost analysis of coastal flood adaptation to different flood risk drivers using structural measures. *Natural Hazards and Earth System Sciences*, **2020**, 20, 1025-1044	3.9	29
68	Review Article: A comparison of flood and earthquake vulnerability assessment indicators. *Natural Hazards and Earth System Sciences*, **2017**, 17, 1231-1251	3.9	29
67	Influence of El Ni□-Southern Oscillation on Global Coastal Flooding. *Earth□s Future*, **2018**, 6, 1311-1322	7.9	28
66	Sensitivity of water scarcity events to ENSO-driven climate variability at the global scale. *Hydrology and Earth System Sciences*, **2015**, 19, 4081-4098	5.5	26
65	Spatiotemporal patterns of extreme sea levels along the western North-Atlantic coasts. *Scientific Reports*, **2019**, 9, 3391	4.9	25
64	Agreement between reconstructed and modeled boreal precipitation of the Last Interglacial. *Science Advances*, **2019**, 5, eaax7047	14.3	25
63	Future changes in Mekong River hydrology: impact of climate change and reservoir operation on discharge		23
62	The need to integrate flood and drought disaster risk reduction strategies. *Water Security*, **2020**, 11, 100070	3.8	23
61	Brief communication: Rethinking the 1998□China floods to prepare for a nonstationary future. *Natural Hazards and Earth System Sciences*, **2019**, 19, 715-719	3.9	21

60	Partial costs of global climate change adaptation for the supply of raw industrial and municipal water: a methodology and application. *Environmental Research Letters*, **2010**, 5, 044011	6.2	21
59	Compound warm□dry and cold□wet events over the Mediterranean. *Earth System Dynamics*, **2020**, 11, 793-805	4.8	20
58	Attribution of Large-Scale Climate Patterns to Seasonal Peak-Flow and Prospects for Prediction Globally. *Water Resources Research*, **2018**, 54, 916-938	5.4	19
57	Enhancement of large-scale flood risk assessments using building-material-based vulnerability curves for an object-based approach in urban and rural areas. *Natural Hazards and Earth System Sciences*, **2019**, 19, 1703-1722	3.9	17
56	Assessment of the effects of climate and land cover changes on river discharge and sediment yield, and an adaptive spatial planning in the Jakarta region. *Natural Hazards*, **2014**, 73, 507-530	3	17
55	Financing agricultural drought risk through ex-ante cash transfers. *Science of the Total Environment*, **2019**, 653, 523-535	10.2	17
54	Achieving the reduction of disaster risk by better predicting impacts of El Ni□o and La Ni□a. *Progress in Disaster Science*, **2019**, 2, 100022	7.8	16
53	Palaeoclimatological perspective on river basin hydrometeorology: case of the Mekong Basin. *Hydrology and Earth System Sciences*, **2013**, 17, 2069-2081	5.5	16
52	Coastal and river flood risk analyses for guiding economically optimal flood adaptation policies: a country-scale study for Mexico. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2018**, 376,	3	15
51	Floods and climate: emerging perspectives for flood risk assessment and management		15
50	Hydrometeorological Hazards: Monitoring, Forecasting, Risk Assessment, and Socioeconomic Responses. *Advances in Meteorology*, **2016**, 2016, 1-3	1.7	13
49	Identification of symmetric and asymmetric responses in seasonal streamflow globally to ENSO phase. *Environmental Research Letters*, **2018**, 13, 044031	6.2	12
48	Sensitivity of discharge and flood frequency to twenty-first century and late Holocene changes in climate and land use (River Meuse, northwest Europe). *Climatic Change*, **2011**, 106, 179-202	4.5	11
47	Translating large-scale climate variability into crop production forecast in Europe. *Scientific Reports*, **2019**, 9, 1277	4.9	10
46	Multivariate extremes and compound events **2020**, 59-76		10
45	A framework for global river flood risk assessments		9
44	Changes in flood damage with global warming on the eastern coast of Spain. *Natural Hazards and Earth System Sciences*, **2019**, 19, 2855-2877	3.9	8
43	Comparison of estimates of global flood models for flood hazard and exposed gross domestic product: a China case study. *Natural Hazards and Earth System Sciences*, **2020**, 20, 3245-3260	3.9	7

42	Set Up and Calibration of a Spatial Tool for Simulating Latest Decades Flow Discharges of the Western Java: Preliminary Results and Assessments. *ITB Journal of Engineering Science*, **2009**, 41, 50-64		7
41	Scaling of extreme rainfall areas at a planetary scale. *Chaos*, **2015**, 25, 075407	3.3	6
40	FLOPROS: an evolving global database of flood protection standards		6
39	Uncertainty and Bias in Global to Regional Scale Assessments of Current and Future Coastal Flood Risk. *Earth's Future*, **2021**, 9, e2020EF001882	7.9	6
38	The Asynergies of Structural Disaster Risk Reduction Measures: Comparing Floods and Earthquakes. *Earth's Future*, **2021**, 9, e2020EF001531	7.9	6
37	Commentary: The Need for a High-Accuracy, Open-Access Global DEM. *Frontiers in Earth Science*, **2019**, 7,	3.5	5
36	Future scenarios for earthquake and flood risk in Eastern Europe and Central Asia. *Earth's Future*, **2017**, 5, 693-714	7.9	5
35	The Need for Mapping, Modeling, and Predicting Flood Hazard and Risk at the Global Scale. *Geophysical Monograph Series*, **2018**, 1-15	1.1	5
34	CLIMRISK-RIVER: Accounting for local river flood risk in estimating the economic cost of climate change. *Environmental Modelling and Software*, **2020**, 132, 104784	5.2	5
33	Impact of Large-scale Climatic Oscillations on Snowfall-related Climate Parameters in the World's Major Downhill Ski Areas: A Review. *Mountain Research and Development*, **2012**, 32, 431-445	1.4	4
32	Cutting the costs of coastal protection by integrating vegetation in flood defences. *Nature Communications*, **2021**, 12, 6533	17.4	4
31	Exploring the ENSO Impact on Basin-Scale Floods Using Hydrological Simulations and TRMM Precipitation. *Geophysical Research Letters*, **2020**, 47, e2020GL089476	4.9	4
30	Global River Discharge and Floods in the Warmer Climate of the Last Interglacial. *Geophysical Research Letters*, **2020**, 47, e2020GL089375	4.9	4
29	Long-term sea-level rise necessitates a commitment to adaptation: A first order assessment. *Climate Risk Management*, **2021**, 34, 100355	4.6	4
28	Exploring deep learning capabilities for surge predictions in coastal areas. *Scientific Reports*, **2021**, 11, 17224	4.9	4
27	A hydrography upscaling method for scale-invariant parametrization of distributed hydrological models. *Hydrology and Earth System Sciences*, **2021**, 25, 5287-5313	5.5	4
26	Flood Risk in Polder Systems in Jakarta: Present and Future Analyses. *Disaster Risk Reduction*, **2017**, 517-537		3
25	Financing increasing flood risk: evidence from millions of buildings		3

24	Flood Risk and Monitoring Data for Preparedness and Response. *Geophysical Monograph Series*, **2021**, 289-306	1.1	3
23	A spatially-explicit harmonized global dataset of critical infrastructure.. *Scientific Data*, **2022**, 9, 150	8.2	3
22	A globally consistent local-scale assessment of future tropical cyclone risk.. *Science Advances*, **2022**, 8, eabm8438	14.3	3
21	Measuring compound flood potential from river discharge and storm surge extremes at the global scale and its implications for flood hazard **2019**,		2
20	What Will the Weather Do? Forecasting Flood Losses Based on Oscillation Indices. *Earth's Future*, **2020**, 8, e2019EF001450	7.9	2
19	Global flood hazard map and exposed GDP comparison: a China case study **2020**,		2
18	Reply to 'Statistics of flood risk'. *Nature Climate Change*, **2014**, 4, 844-845	21.4	2
17	The asynergies of disaster risk reduction measures in Afghanistan		2
16	Sensitivity of water scarcity events to ENSO driven climate variability at the global scale		2
15	Risks on global financial stability induced by climate change: the case of flood risks. *Climatic Change* , **2021**, 166, 1	4.5	2
14	Adaptive risk management strategies for governments under future climate and socioeconomic change: An application to riverine flood risk at the global level. *Environmental Science and Policy*, **2021**, 125, 10-20	6.2	2
13	Enhancement of large-scale flood damage assessments using building-material-based vulnerability curves for an object-based approach **2019**,		1
12	Strong increases in flood frequency and discharge of the River Meuse over the late Holocene: impacts of long-term anthropogenic land use change and climate variability		1
11	Paleoclimatological perspective on the hydrometeorology of the Mekong Basin		1
10	Global Flood Models. *Geophysical Monograph Series*, **2021**, 181-200	1.1	1
9	<i>Breaking the Silos</i>: an online serious game for multi-risk disaster risk reduction (DRR) management. *Geoscience Communication*, **2021**, 4, 383-397	0.7	1
8	Global River Flood Risk Under Climate Change. *Geophysical Monograph Series*, **2021**, 251-270	1.1	0
7	Global Flood Observation with Multiple Satellites. *Geophysical Monograph Series*, **2021**, 99-121	1.1	0

6	Global Flood Partnership. *Geophysical Monograph Series*, **2021**, 307-322	1.1	0
5	Invited perspectives: A research agenda towards disaster risk management pathways in multi-(hazard-)risk assessment. *Natural Hazards and Earth System Sciences*, **2022**, 22, 1487-1497	3.9	0
4	System vulnerability to flood events and risk assessment of railway systems based on national and river basin scales in China. *Natural Hazards and Earth System Sciences*, **2022**, 22, 1519-1540	3.9	0
3	Review article: Natural hazard risk assessments at the global scale **2019**,		
2	Digital Elevation Model and Drainage Network Data Sets for Global Flood and Drought Modeling. *Geophysical Monograph Series*, **2021**, 213-235	1.1	
1	Drought and Flood Monitoring and Forecasting. *Geophysical Monograph Series*, **2021**, 323-326	1.1	