Sustainable hydropower in the 21st century

Proceedings of the National Academy of Sciences of the Unite
115, 11891-11898
DOI: 10.1073/pnas.1809426115

#	Article	IF	Citations
2	Exploring longitudinal trends and recovery gradients in macroinvertebrate communities and biomonitoring tools along regulated rivers. Science of the Total Environment, 2019, 695, 133774.	3.9	28
3	Mapping research on hydropower and sustainability in the Brazilian Amazon: advances, gaps in knowledge and future directions. Current Opinion in Environmental Sustainability, 2019, 37, 50-69.	3.1	42
4	Freshwater Ecosystems versus Hydropower Development: Environmental Assessments and Conservation Measures in the Transboundary Amur River Basin. Water (Switzerland), 2019, 11, 1570.	1.2	15
5	Analysis of the gyroscopic effect on the hydro-turbine generator unit. Mechanical Systems and Signal Processing, 2019, 132, 138-152.	4.4	13
6	Current hydropower developments in Europe. Current Opinion in Environmental Sustainability, 2019, 37, 41-49.	3.1	60
7	Multi-decadal hydrologic change and variability in the Amazon River basin: understanding terrestrial water storage variations and drought characteristics. Hydrology and Earth System Sciences, 2019, 23, 2841-2862.	1.9	48
8	Indirect Assessment of Sedimentation in Hydropower Dams Using MODIS Remote Sensing Images. Remote Sensing, 2019, 11, 314.	1.8	16
9	The consumptive water footprint of the European Union energy sector. Environmental Research Letters, 2019, 14, 104016.	2.2	29
10	Renewable Energy in Wilderness Landscapes: Visitorsâ€™ Perspectives. Sustainability, 2019, 11, 5812.	1.6	8
11	Defining the robust operating rule for multi-purpose water reservoirs under deep uncertainties. Journal of Hydrology, 2019, 578, 124134.	2.3	22
12	How Relevant Are Non-Use Values and Perceptions in Economic Valuations? The Case of Hydropower Plants. Energies, 2019, 12, 2986.	1.6	10
13	Editorial overview: Introduction to the special issue: Hydropower and sustainability in the Anthropocene. Current Opinion in Environmental Sustainability, 2019, 37, A1-A6.	3.1	3
14	The impact of electric generation capacity by renewable and non-renewable energy in Brazilian economic growth. Environmental Science and Pollution Research, 2019, 26, 33236-33259.	2.7	6
15	Reducing greenhouse gas emissions of Amazon hydropower with strategic dam planning. Nature Communications, 2019, 10, 4281.	5.8	126
16	Quantifying the impacts of dams on riverine hydrology under non-stationary conditions using incomplete data and Gaussian copula models. Science of the Total Environment, 2019, 677, 599-611.	3.9	21
17	Ecosystem maintenance energy and the need for a green EROI. Energy Policy, 2019, 131, 229-234.	4.2	39
18	Environmental justice and Chinese dam-building in the global South. Current Opinion in Environmental Sustainability, 2019, 37, 20-27.	3.1	11
19	Diagnosing the role of the state for local collective action: Types of action situations and policy instruments. Environmental Science and Policy, 2019, 97, 44-57.	2.4	58

#	Article	IF	Citations
20	Evaluating Monetary-Based Benefit-Sharing as a Mechanism to Improve Local Human Development and its Importance for Impact Assessment of Hydropower Plants in Brazil. Journal of Environmental Assessment Policy and Management, 2019, 21, 1950003.	4.3	6
21	Decline of Fine Suspended Sediments in the Madeira River Basin (2003â€“2017). Water (Switzerland), 2019, 11, 514.	1.2	14
22	Residual biomass energy potential: perspectives in a peripheral region in Brazil. Clean Technologies and Environmental Policy, 2019, 21, 733-744.	2.1	6
23	Hidden Hydro Related with Non-Powered Dams in Romania. , 2019, , .		3
24	Discovering Dependencies, Tradeâ€Offs, and Robustness in Joint Dam Design and Operation: An Exâ€Post Assessment of the Kariba Dam. Earth's Future, 2019, 7, 1367-1390.	2.4	30
25	The influence of the global electric power system on terrestrial biodiversity. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 26078-26084.	3.3	27
26	Vulnerability assessment of the Satluj catchment for sustainable development of hydroelectric projects in the northwestern Himalaya. Journal of Mountain Science, 2019, 16, 2714-2738.	0.8	11
27	Status, trends and significance of American hydropower in the changing energy landscape. Renewable and Sustainable Energy Reviews, 2019, 101, 112-122.	8.2	23
28	The human impact in geomorphology â€“ 50â€years of change. Geomorphology, 2020, 366, 106601.	1.1	39
29	Too late for indigenous climate justice: Ecological and relational tipping points. Wiley Interdisciplinary Reviews: Climate Change, 2020, 11, e603.	3.6	166
30	Engaging soft computing in material and modeling uncertainty quantification of dam engineering problems. Soft Computing, 2020, 24, 11583-11604.	2.1	16
31	Assessing the reliability, resilience and vulnerability of water supply system under multiple uncertain sources. Journal of Cleaner Production, 2020, 252, 119806.	4.6	50
32	The construction of the Belo Monte dam in the Brazilian Amazon and its consequences on regional rural labor. Land Use Policy, 2020, 90, 104327.	2.5	19
33	Enhanced riparian denitrification in reservoirs following hydropower production. Journal of Hydrology, 2020, 583, 124305.	2.3	13
34	The energy injustice of hydropower: Development, resettlement, and social exclusion at the Hongjiang and Wanmipo hydropower stations in China. Energy Research and Social Science, 2020, 62, 101366.	3.0	37
35	The Integrated Hydropower Sustainability Assessment in Tajikistan: A Case Study of Rogun Hydropower Plant. Advances in Civil Engineering, 2020, 2020, 1-18.	0.4	6
36	Energy and Climate Policyâ€"An Evaluation of Global Climate Change Expenditure 2011â€“2018. Energies, 2020, 13, 4839.	1.6	38
37	Water-energy-ecosystem nexus in small run-of-river hydropower: Optimal design and policy. Applied Energy, 2020, 280, 115936.	5.1	15

#	Article	IF	Citations
38	Changing how we build hydropower infrastructure for the common good: lessons from the Brazilian Amazon. Civitas, 2020, 20, 5.	0.1	7
39	Trends in streamflow, evapotranspiration, and groundwater storage across the Amazon Basin linked to changing precipitation and land cover. Journal of Hydrology: Regional Studies, 2020, 32, 100755.	1.0	16
40	From fast-track implementation to livelihood deterioration: The dam-based Ribb Irrigation and Drainage Project in Northwest Ethiopia. Agricultural Systems, 2020, 184, 102909.	3.2	9
41	Application of deep learning for solar irradiance and solar photovoltaic multi-parameter forecast. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 0, , 1-21.	1.2	18
42	Priorities for governing large-scale infrastructure in the tropics. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 21829-21833.	3.3	16
43	Risk and Value in Benefit-sharing with Displaced People: Looking Back 40 Years, Anticipating the Future. Social Change, 2020, 50, 447-465.	0.1	6
44	Dam and reservoir removal projects: a mix of social-ecological trends and cost-cutting attitudes. Scientific Reports, 2020, 10, 19210.	1.6	42
45	Controlling biodiversity impacts of future global hydropower reservoirs by strategic site selection. Scientific Reports, 2020, 10, 21777.	1.6	19
46	Impacts of low-head hydropower plants on cyprinid-dominated fish assemblages in Lithuanian rivers. Scientific Reports, 2020, 10, 21687.	1.6	14
47	Distributed Generation: A Review on Current Energy Status, Grid-Interconnected PQ Issues, and Implementation Constraints of DG in Malaysia. Energies, 2020, 13, 6479.	1.6	11
48	Assessment of Hydrology and Sediment Yield in the Mekong River Basin Using SWAT Model. Water (Switzerland), 2020, 12, 3503.	1.2	25
49	Impactos da Usina HidrelÃ©trica de Belo Monte: uma anÃ¡lise da visÃ£o das populaÃ§Ãµes ribeirinhas das reservas extrativistas da Terra do Meio. Civitas, 2020, 20, 43.	0.1	2
50	Hydropower Case Study Collection: Innovative Low Head and Ecologically Improved Turbines, Hydropower in Existing Infrastructures, Hydropeaking Reduction, Digitalization and Governing Systems. Sustainability, 2020, 12, 8873.	1.6	39
51	Quantifying the relative importance of stock level, river temperature and discharge on the abundance of juvenile Atlantic salmon (<scp><i>Salmo salar</i></scp>). Ecohydrology, 2020, 13, e2231.	1.1	9
52	Balancing fish-energy-cost tradeoffs through strategic basin-wide dam management. Resources, Conservation and Recycling, 2020, 161, 104990.	5.3	10
53	Renewable Energy Entrepreneurs: A Conceptual Framework. Energies, 2020, 13, 2554.	1.6	14
54	A Novel Riccati Equation Grey Model And Its Application In Forecasting Clean Energy. Energy, 2020, 205, 118085.	4.5	35
55	Impacts of climate change and deforestation on hydropower planning in the Brazilian Amazon. Nature Sustainability, 2020, 3, 430-436.	11.5	53

#	Article	IF	Citations
56	Identifying the Links Among Poverty, Hydroenergy and Water Use Using Data Mining Methods. Water Resources Management, 2020, 34, 1725-1741.	1.9	13
57	Influence of dams on river waterâ€quality signatures at event and seasonal scales: The SÃ©lune River (France) case study. River Research and Applications, 2020, 36, 1267-1278.	0.7	9
58	An Evaluation Model of Quantitative and Qualitative Fuzzy Multi-Criteria Decision-Making Approach for Hydroelectric Plant Location Selection. Energies, 2020, 13, 2783.	1.6	43
59	Non-Hydropower Renewable Energy in Central Asia: Assessment of Deployment Status and Analysis of Underlying Factors. Energies, 2020, 13, 2963.	1.6	15
60	Integrated Design of Dam Size and Operations via Reinforcement Learning. Journal of Water Resources Planning and Management - ASCE, 2020, 146, .	1.3	6
61	International conflict and cooperation over freshwater resources. Nature Sustainability, 2020, 3, 350-356.	11.5	80
62	Evaluating the distribution of freshwater fish diversity using a multispecies habitat suitability model to assess impacts of proposed dam development in Gabon, Africa. Conservation Science and Practice, 2020, 2, e151.	0.9	3
63	Hydropower reservoirs on the upper Mekong River modify nutrient bioavailability downstream. National Science Review, 2020, 7, 1449-1457.	4.6	79
64	Influence of Small Hydroelectric Power Stations on River Water Quality. Water (Switzerland), 2020, 12, 312.	1.2	23
65	Small hydropower plants as a threat to the endangered pearl mussel Margaritifera margaritifera. Science of the Total Environment, 2020, 719, 137361.	3.9	30
66	Sustainable Development of Small-Sized Hydropower Plants: Multilevel Decision-Making from Site Selection to Optimal Design. Arabian Journal for Science and Engineering, 2020, 45, 4141-4159.	1.7	4
67	Unravelling the effects of large-scale ecological programs on ecological rehabilitation of Chinaâ€™s Three Gorges Dam. Journal of Cleaner Production, 2020, 256, 120446.	4.6	26
68	Nitrous oxide emissions from cascade hydropower reservoirs in the upper Mekong River. Water Research, 2020, 173, 115582.	5.3	32
69	River dam impacts on biogeochemical cycling. Nature Reviews Earth & Environment, 2020, 1, 103-116.	12.2	372
70	Evaluating ecological health in the middle-lower reaches of the Hanjiang River with cascade reservoirs using the Planktonic index of biotic integrity (P-IBI). Ecological Indicators, 2020, 114, 106282.	2.6	40
71	When more trees mean more power. Nature Sustainability, 2020, 3, 410-411.	11.5	3
72	Waterâ€“Air Interface Greenhouse Gas Emissions (CO2, CH4, and N2O) Emissions Were Amplified by Continuous Dams in an Urban River in Qinghaiâ€“Tibet Plateau, China. Water (Switzerland), 2020, 12, 759.	1.2	9
73	Impacts of Mainstream Hydropower Dams on Fisheries and Agriculture in Lower Mekong Basin. Sustainability, 2020, 12, 2408.	1.6	62

#	Article	IF	Citations
74	Ecological health assessments of rivers with multiple dams based on the biological integrity of phytoplankton: A case study of North Creek of Jiulong River. Ecological Indicators, 2021, 121, 106998.	2.6	25
75	Floating PV system as an alternative pathway to the amazon dam underproduction. Renewable and Sustainable Energy Reviews, 2021, 135, 110082.	8.2	33
76	Cities and extreme weather events: impacts of flooding and extreme heat on water and electricity services in Ghana. Environment and Urbanization, 2021, 33, 131-150.	1.5	22
77	Water security and watershed management assessed through the modelling of hydrology and ecological integrity: A study in the Galicia-Costa (NW Spain). Science of the Total Environment, 2021, 759, 143905.	3.9	16
78	Biomass energy as a possibility for innovative agriculture initiatives. Energy, Ecology and Environment, 2021, 6, 344-352.	1.9	3
79	Mismatch between critical and accumulated temperature following river damming impacts fish spawning. Science of the Total Environment, 2021, 756, 144052.	3.9	24
80	Stability and sensitivity analysis of the bending-torsional coupled vibration with the arcuate whirl of hydro-turbine generator unit. Mechanical Systems and Signal Processing, 2021, 149, 107306.	4.4	27
81	Would Africaâ€™s largest hydropower dam have profound environmental impacts?. Environmental Science and Pollution Research, 2021, 28, 8936-8944.	2.7	17
82	Efficient hydroenergy conversion technologies, challenges, and policy implication. , 2021, , 295-318.		1
83	Hydrogeomorphic Effects of Reservoirs, Dams, and Diversions. , 2022, , 144-166.		2
84	Mathematical modeling of vibration failure caused by balancing effect in hydraulic turbines. Mechanics Based Design of Structures and Machines, 0, , 1-12.	3.4	5
85	Freshwaters: Global Distribution, Biodiversity, Ecosystem Services, and Human Pressures. , 2021, , 489-501.		2
86	Population Resettlement for Hydropower Development in the Lancang River Basin: An Evolving Policy Framework and Its Implications for Local People. International Political Economy Series, 2021, , 89-106.	0.3	0
87	Promises and pitfalls of China-Southeast Asia energy connectivity. Energy Strategy Reviews, 2021, 33, 100574.	3.3	10
88	Implications to the electricity system of Paraguay of different demand scenarios and export prices to Brazil. Energy Systems, 2021, 12, 911-939.	1.8	5
89	A method for calculating the parameters of the sine filter of the frequency converter, taking into account the criterion of starting current limitation and pulse-width modulation frequency. Eastern-European Journal of Enterprise Technologies, 2021, 1, 6-16.	0.3	14
90	Major Elements in the Upstream of Three Gorges Reservoir: An Investigation of Chemical Weathering and Water Quality during Flood Events. Water (Switzerland), 2021, 13, 454.	1.2	7
91	Dataset of Georeferenced Dams in South AmericaÂ(DDSA). Earth System Science Data, 2021, 13, 213-229.	3.7	10

#	Article	IF	Citations
92	An open source reservoir and sediment simulation framework for identifying and evaluating siting, design, and operation alternatives. Environmental Modelling and Software, 2021, 136, 104947.	1.9	13
93	Predicting the effects of reservoir water level management on the reproductive output of a riparian songbird. PLoS ONE, 2021, 16, e0247318.	1.1	0
94	The albedoâ€"climate penalty of hydropower reservoirs. Nature Energy, 2021, 6, 372-377.	19.8	27
95	Good living of communities and sustainability of the hydropower business: mapping an operational framework for benefit sharing. Energy, Sustainability and Society, 2021, 11, .	1.7	1
96	Implications of renewable resource dynamics for energy system planning: The case of geothermal and hydropower in Kenya. Energy Policy, 2021, 150, 111985.	4.2	19
97	Effects of the El NiÃ±o Southern Oscillation (ENSO) on fish assemblages in a Neotropical floodplain. Hydrobiologia, 2021, 848, 1811-1823.	1.0	9
98	Climate variability affects water-energy-food infrastructure performance in East Africa. One Earth, 2021, 4, 397-410.	3.6	23
99	Ancient WEF: Waterâ€"Energyâ€"Food Nexus in the Distant Past. Water (Switzerland), 2021, 13, 925.	1.2	10
101	Using Relict Speciesâ€"Area Relationships to Estimate the Conservation Value of Reservoir Islands to Improve Environmental Impact Assessments of Dams. , 2021, , 417-437.		2
102	Computationally efficient evolutionary optimisation for joint reservoir design-operations. Water Management, 0, , 1-16.	0.4	1
103	Inventory of dams in Germany. Earth System Science Data, 2021, 13, 731-740.	3.7	10
104	A spatiotemporal atlas of hydropower in Africa for energy modelling purposes. Open Research Europe, 0, 1, 29.	2.0	1
105	Direct aromatization of CO2 via combined CO2 hydrogenation and zeolite-based acid catalysis. Journal of CO2 Utilization, 2021, 45, 101405.	3.3	51
106	Nanofluidic Membranes to Address the Challenges of Salinity Gradient Power Harvesting. ACS Nano, 2021, 15, 5838-5860.	7.3	97
107	In-stream turbines for rethinking hydropower development in the Amazon basin. Nature Sustainability, 2021, 4, 680-687.	11.5	25
108	Lake Modeling Reveals Management Opportunities for Improving Water Quality Downstream of Transboundary Tropical Dams. Water Resources Research, 2021, 57, e2020WR027465.	1.7	16
109	Stakeholder Perceptions on the Governance of Fisheries Systems Transformed by Hydroelectric Dam Development in the Madeira River, Brazil. Frontiers in Environmental Science, 2021, 9, .	1.5	6
111	Sediment Management for Reservoir Sustainability and Cost Implications Under Land Use/Land Cover Change Uncertainty. Water Resources Research, 2021, 57, e2020WR028351.	1.7	12

#	Article	IF	Citations
112	Linking solar and wind power in eastern Africa with operation of the Grand Ethiopian Renaissance Dam. Nature Energy, 2021, 6, 407-418.	19.8	49
113	Protecting the downstream migration of salmon smolts from hydroelectric power plants with inclined racks and optimized bypass water discharge. Journal of Environmental Management, 2021, 284, 112012.	3.8	13
114	Sustainable development in the Legal Amazon: energy recovery from aÃ§aÃ-seeds. Biofuels, Bioproducts and Biorefining, 2021, 15, 1174-1189.	1.9	13
115	Design of a Database of Case Studies and Technologies to Increase the Diffusion of Low-Temperature Waste Heat Recovery in the Industrial Sector. Sustainability, 2021, 13, 5223.	1.6	4
116	Integrating hydrological, landscape ecological, and economic assessment during hydropower exploitation in the upper Yangtze River. Science of the Total Environment, 2021, 767, 145496.	3.9	9
117	Experimental investigation of a model bulb turbine under steady state and load rejection process. Renewable Energy, 2021, 169, 254-265.	4.3	9
118	Sustainable Management, Conservation, and Restoration of the Amazon River Delta and Amazon-Influenced Guianas Coast: A Review. Water (Switzerland), 2021, 13, 1371.	1.2	12
119	A Comprehensive Study on the Recent Progress and Trends in Development of Small Hydropower Projects. Energies, 2021, 14, 2882.	1.6	42
120	1.5â€‰Â°C degrowth scenarios suggest the need for new mitigation pathways. Nature Communications, 2021, 12, 2676.	5.8	154
121	Spatiotemporal Changes of Ecosystem Service Value Determined by National Land Space Pattern Change: A Case Study of Fengdu County in The Three Gorges Reservoir Area, China. International Journal of Environmental Research and Public Health, 2021, 18, 5007.	1.2	11
122	Unaccounted CO ₂ leaks downstream of a large tropical hydroelectric reservoir. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	22
123	How green can Amazon hydropower be? Net carbon emission from the largest hydropower plant in Amazonia. Science Advances, 2021, 7, .	4.7	18
124	Drivers of biodiversity loss in freshwater environments: A bibliometric analysis of the recent literature. Aquatic Conservation: Marine and Freshwater Ecosystems, 2021, 31, 2469-2480.	0.9	21
125	TransiÃ§Ã£o energÃ©tica para a sustentabilidade no Chile e no Brasil: Oportunidades e desafios decorrentes da pandemia por Covid-19. Latin American Journal of Energy Research, 2021, 8, 1-21.	0.4	8
127	A Continental Assessment of Reservoir Storage and Water Availability in South America. Water (Switzerland), 2021, 13, 1992.	1.2	5
128	A Multicriteria Evaluation of Sustainable Riparian Revegetation with Local Fruit Trees around a Reservoir of a Hydroelectric Power Plant in Central Brazil. Sustainability, 2021, 13, 7849.	1.6	0
129	Small hydropower dam site suitability modelling in upper Benue river watershed, Nigeria. Applied Water Science, 2021, 11, 1.	2.8	10
130	Twentyâ€five essential research questions to inform the protection and restoration of freshwater biodiversity. Aquatic Conservation: Marine and Freshwater Ecosystems, 2021, 31, 2632-2653.	0.9	49

#	Article	IF	Citations
131	Analysis of Hydrologic Regime Changes Caused by Small Hydropower Plants in Lowland Rivers. Water (Switzerland), 2021, 13, 1961.	1.2	8
132	Potential Solar Replacement of Hydroelectricity to Reopen Rivers: Maine as a Case Example. Fisheries, 2021, 46, 383-390.	0.6	4
133	Health assessment of small-to-medium sized rivers: Comparison between comprehensive indicator method and biological monitoring method. Ecological Indicators, 2021, 126, 107686.	2.6	21
134	Evaluating the complementarity of solar, wind and hydropower to mitigate the impact of El NiÃ±o Southern Oscillation in Latin America. Renewable Energy, 2021, 174, 453-467.	4.3	25
135	Green Energyâ€"Green for Whom? A Case Study of the Kabinakagami River Waterpower Project in Northern Canada. Sustainability, 2021, 13, 9445.	1.6	3
136	Do global competitiveness factors effects the industry sustainability practices? Evidence from European hydropower industry. Journal of Cleaner Production, 2021, 310, 127492.	4.6	23
137	Stakeholder Management and Project Sustainabilityâ€"A Throw of the Dice. Sustainability, 2021, 13, 9513.	1.6	7
138	A Grid for all Seasons: Enhancing the Integration of Variable Solar and Wind Power in Electricity Systems Across Africa. Current Sustainable/Renewable Energy Reports, 2021, 8, 274-281.	1.2	9
139	Global Biodiversity Implications of Alternative Electrification Strategies Under the Shared Socioeconomic Pathways. Biological Conservation, 2021, 260, 109234.	1.9	17
140	A systematic framework for the assessment of sustainable hydropower potential in a river basin â€" The case of the upper Indus. Science of the Total Environment, 2021, 786, 147142.	3.9	18
141	The transition of electrical systems to sustainability: Political and institutional drivers in Chile and Brazil. MRS Energy & Sustainability, 2021, 8, 75-87.	1.3	3
142	Predicting the Likely Thermal Impact of Current and Future Dams Around the World. Earth's Future, 2021, 9, e2020EF001916.	2.4	11
143	Emerging and Innovative Materials for Hydropower Engineering Applications: Turbines, Bearings, Sealing, Dams and Waterways, and Ocean Power. Engineering, 2022, 8, 148-158.	3.2	37
144	Hydropower and Sustainability. , 0, , .		0
145	Water Infrastructure Development in Nigeria: Trend, Size, and Purpose. Water (Switzerland), 2021, 13, 2416.	1.2	7
146	Do methods used in social impact assessment adequately capture impacts? An exploration of the research-practice gap using hydroelectricity in Canada. Energy Research and Social Science, 2021, 79, 102188.	3.0	4
147	Synthesizing social and environmental sensing to monitor the impact of large-scale infrastructure development. Environmental Science and Policy, 2021, 124, 527-540.	2.4	8
148	Has carbon emissions trading system promoted non-fossil energy development in China?. Applied Energy, 2021, 302, 117613.	5.1	53

#	Article	IF	Citations
149	The role of hydropower energy in the level of CO2 emissions: An application of continuous wavelet transform. Renewable Energy, 2021, 178, 283-294.	4.3	73
150	Transboundary river basins: Scenarios of hydropower development and operation under extreme climate conditions. Science of the Total Environment, 2022, 803, 149828.	3.9	5
151	Progress and Prospects of Research on Ecological Impact of Channel Regulation Structure. IOP Conference Series: Earth and Environmental Science, 0, 643, 012092.	0.2	0
152	Politics and Economics of Hydropower: Emerging Conflicts. Encyclopedia of the UN Sustainable Development Goals, 2021, , 1012-1023.	0.0	0
153	Smart renewable electricity portfolios in West Africa. Nature Sustainability, 2020, 3, 710-719.	11.5	66
154	Chinaâ€™s leadership in the hydropower sector: identifying green windows of opportunity for technological catch-up. Industrial and Corporate Change, 2021, 29, 1319-1343.	1.7	26
155	It Is Not Easy Being Green: Recognizing Unintended Consequences of Green Stormwater Infrastructure. Water (Switzerland), 2020, 12, 522.	1.2	64
156	A Meta-Analysis of Environmental Tradeoffs of Hydropower Dams in the Sekong, Sesan, and Srepok (3S) Rivers of the Lower Mekong Basin. Water (Switzerland), 2021, 13, 63.	1.2	11
158	Natural infrastructure in sustaining global urban freshwater ecosystem services. Nature Sustainability, 2021, 4, 1068-1075.	11.5	62
159	Quantifying available energy and anthropogenic energy use in the Mississippi River Basin. Infrastructure Asset Management, 2021, 8, 280-303.	1.2	0
160	Quantifying spatiotemporal impacts of hydro-dams on land use/land cover changes in the Lower Mekong River Basin. Applied Geography, 2021, 136, 102588.	1.7	9
161	Immediate effects of an Amazonian mega hydroelectric dam on phyllostomid fruit bats. Ecological Indicators, 2021, 132, 108322.	2.6	5
162	HYDROELECTRIC ROAD RAMP. Nauka Ta Progres Transportu, 2019, .	0.0	0
163	Desafios de um trabalho de campo no contexto da usina de Belo Monte. Confins, 2020, , .	0.0	0
164	Realizing ecosystem-safe hydropower from dams. Renewables: Wind, Water, and Solar, 2020, 7, 2.	2.5	2
165	The Hydropower Revolution: New Technologies, Plant Types and Case Studies. , 2022, , 214-224.		0
166	Hidrolik Santrallarde Kavitasyon OlayÄ±nÄ±n Neden OlduÄŸu ArÄ±zalar ve Ã‡Ã¶zÃ¼m YÃ¶ntemleri. International Journal of Pure and Applied Sciences, 0, , .	0.3	1
167	Politics and Economics of Hydropower: Emerging Conflicts. Encyclopedia of the UN Sustainable Development Goals, 2020, , 1-12.	0.0	0

#	Article	IF	Citations
168	Innovative Projects and Technology Implementation in the Hydropower Sector. , 0, , .		1
169	Are large-scale hydroelectric dams inherently undemocratic?. Global Environmental Change, 2021, 71, 102395.	3.6	9
170	Evident but contextâ€dependent mortality of fish passing hydroelectric turbines. Conservation Biology, 2022, 36, .	2.4	7
171	Acoustic Vibration Approach for Detecting Faults in Hydroelectric Units: A Review. Energies, 2021, 14, 7840.	1.6	11
172	Investigation of climate change impacts on hydropower generation: the case of a run-of-river small hydropower plant in North Western Greece. IOP Conference Series: Earth and Environmental Science, 2021, 899, 012026.	0.2	1
173	Functional responses of fisheries to hydropower dams in the Amazonian Floodplain of the Madeira River. Journal of Applied Ecology, 2022, 59, 680-692.	1.9	11
174	Prioritization of renewable energy source for electricity generation through AHP-VIKOR integrated methodology. Renewable Energy, 2022, 184, 1018-1032.	4.3	85
175	The impact of dams on the river connectivity of the two largest river basins in China. River Research and Applications, 2022, 38, 185-193.	0.7	6
176	A synoptic history of the development, production and environmental oversight of hydropower in Brazil, Canada, and Norway. Hydrobiologia, 2022, 849, 269-280.	1.0	14
177	Atlantic salmon in regulated rivers: Understanding river management through the ecosystem services lens. Fish and Fisheries, 2022, 23, 478-491.	2.7	15
178	Hydropower, Social Capital, Community Impacts, and Selfâ€Rated Health in the Amazon*. Rural Sociology, 2022, 87, 393-426.	1.1	7
179	AdaptaciÃ³n y validaciÃ³n factorial de dos escalas de solastalgia en espaÃ±ol en contextos con embalses. Revista De Salud Publica, 2021, 23, 1-6.	0.0	2
180	Environmental Assessment of the UHE Tijuco Alto Hydropower Plant: the change of the dominant order. Ambiente & Sociedade, 0, 24, .	0.5	1
182	Coastal planktonic community unaffected by Boreal hydropower complex in QuÃ©bec, Canada. Environmental Monitoring and Assessment, 2022, 194, 52.	1.3	2
183	Modelling of threats that affect Cyano-HABs in an eutrophicated reservoir: First phase towards water security and environmental governance in watersheds. Science of the Total Environment, 2022, 809, 152155.	3.9	10
184	Xiaolangdi Dam: A valve for streamflow extremes on the lower Yellow River. Journal of Hydrology, 2022, 606, 127426.	2.3	15
185	Design and techno-economic analysis of a hybrid system for energy supply in a wastewater treatment plant: A decentralized energy strategy. Journal of Environmental Management, 2022, 305, 114389.	3.8	7
186	Hydropower: Case Studies in Sustainability. , 2021, , .		0

#	Article	IF	Citations
187	Water, Energy and Carbon Tradeoffs of Groundwater Irrigation-Based Food Production: Case Studies from Fergana Valley, Central Asia. Sustainability, 2022, 14, 1451.	1.6	2
188	The use of hydropower for electricity generation. , 2022, , 89-135.		1
189	Hydrovoltaic power generation from multiwalled carbon nanotubes. Sustainable Energy and Fuels, 2022, 6, 1141-1147.	2.5	12
190	Evolving Perspectives on Hydropower: Balancing Societal Benefits and Environmental Impacts. , 2022, , .		0
191	Disentangling sources of future uncertainties for water management in sub-Saharan river basins. Hydrology and Earth System Sciences, 2022, 26, 245-263.	1.9	6
192	Exorcising Malthusian ghosts: Vaccinating the Nexus to advance integrated water, energy and food resource resilience. Current Research in Environmental Sustainability, 2022, 4, 100108.	1.7	1
193	Thirty years of environmental change reduces local, but not regional, diversity of riverine fish assemblages in a Himalayan biodiversity hotspot. Biological Conservation, 2022, 265, 109427.	1.9	6
194	Prioritizing climate change adaptation needs for hydropower sector in China. Environmental Research Letters, 2022, 17, 034040.	2.2	5
195	Desertec initiative in Algeria: Challenges and barriers. , 2022, , 161-182.		0
196	Recently constructed hydropower dams were associated with reduced economic production, population, and greenness in nearby areas. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	23
197	Amazonian runâ€ofâ€river dam reservoir impacts underestimated: Evidence from a beforeâ€"after controlâ€"impact study of freshwater turtle nesting areas. Aquatic Conservation: Marine and Freshwater Ecosystems, 2022, 32, 508-522.	0.9	5
198	A Collaborative Framework for Hydropower Development and Sustainable Livelihood of Farmers in the Lancang-Mekong River Basin: A Review with the Perspective of Energy-Water-Food Nexus. Water (Switzerland), 2022, 14, 499.	1.2	3
199	The hydropower sector in Poland: Historical development and current status. Renewable and Sustainable Energy Reviews, 2022, 158, 112150.	8.2	14
200	Feature Selection Considering Characteristics of Operating Data and Random Cut Trees for Hydroelectric Generator Fault Detection. , 2022, , .		2
201	Stylized least-cost analysis of flexible nuclear power in deeply decarbonized electricity systems considering wind and solar resources worldwide. Nature Energy, 2022, 7, 260-269.	19.8	37
202	Reducing adverse impacts of Amazon hydropower expansion. Science, 2022, 375, 753-760.	6.0	60
203	A spatiotemporal atlas of hydropower in Africa for energy modelling purposes. Open Research Europe, 0, 1, 29.	2.0	1
204	Clean at home, polluting abroad: the role of the Chinese financial systemâ€™s differential treatment of state-owned and private enterprises. Climate Policy, 2023, 23, 57-70.	2.6	6

#	Article	IF	Citations
205	Spatially-explicit quantitative relationship for a potential PES mechanism: Cascade hydropower development in Yarlung Zangbo River Basin, China. Journal of Mountain Science, 2022, 19, 925-944.	0.8	2
206	Is There a Residual and HiddenÂPotential for Small and Micro Hydropower in Europe? A Screening-Level Regional Assessment. Water Resources Management, 2022, 36, 1745-1762.	1.9	18
207	Emergy theory to quantify the sustainability of large cascade hydropower projects in the upper Yangtze. Ecological Modelling, 2022, 468, 109954.	1.2	3
208	Turning Water Abundance Into Sustainability in Brazil. Frontiers in Environmental Science, 2021, 9, .	1.5	5
209	A spatiotemporal atlas of hydropower in Africa for energy modelling purposes. Open Research Europe, 0, 1, 29.	2.0	6
210	Ant assemblages (Hymenoptera: Formicidae) from areas under the direct influence of two small hydropower plants in Brazil. Brazilian Journal of Environmental Sciences (Online), 2022, 57, 105-113.	0.1	0
211	Implications of the Resource Nexus on International Relations: The Case of the Grand Ethiopian Renaissance Dam. Zeitschrift FÃ¼r AuÃŸen- Und Sicherheitspolitik, 2021, 14, 397-409.	0.2	2
212	Alteration of River Flow and Flood Dynamics by Existing and Planned Hydropower Dams in the Amazon River Basin. Water Resources Research, 2022, 58, .	1.7	20
213	Hydroelectric energy potential classification via hypsographical curve concept. International Journal of Energy Research, 0, , .	2.2	1
214	Carbon intensity of global existing and future hydropower reservoirs. Renewable and Sustainable Energy Reviews, 2022, 162, 112433.	8.2	9
215	Getting lost tracking the carbon footprint of hydropower. Renewable and Sustainable Energy Reviews, 2022, 162, 112408.	8.2	7
216	Recent progress, economic potential, and environmental benefits of mineral recovery geothermal brine treatment systems. Arabian Journal of Geosciences, 2022, 15, 1.	0.6	7
217	Anthropogenic activities and habitat complexity influence fish functional diversity in a Neotropical reservoir. Aquatic Sciences, 2022, 84, .	0.6	2
218	Precursory motion and deformation mechanism of the 2018 Xe Pian-Xe Namnoy dam Collapse, Laos: Insights from satellite radar interferometry. International Journal of Applied Earth Observation and Geoinformation, 2022, 109, 102797.	0.9	1
219	The hydropower sector in Poland: Barriers and the outlook for the future. Renewable and Sustainable Energy Reviews, 2022, 163, 112500.	8.2	11
220	Social perception assessment of hydropower sustainability: A stepwise logistic regression modeling. Environmental Science and Policy, 2022, 134, 108-118.	2.4	4
221	Early impacts of the largest Amazonian hydropower project on fish communities. Science of the Total Environment, 2022, 838, 155951.	3.9	15
222	Non-Stationary Hydrological Regimes Due to Climate Change: The Impact of Future Precipitation in the Spillway Design of a Reservoir, Case Study: Sube y Baja Dam, in Ecuador. Atmosphere, 2022, 13, 828.	1.0	2

#	Article	IF	Citations
223	Introducing HyPeak: An international network on hydropeaking research, practice, and policy. River Research and Applications, 2023, 39, 283-291.	0.7	4
224	Shrinking Habitats and Native Species Loss Under Climate Change: A Multifactorial Risk Assessment of China's Inland Wetlands. Earth's Future, 2022, 10, .	2.4	10
225	Pretend Participation: Procedural Injustices in the Madeira Hydroelectric Complex. Global Environmental Change, 2022, 75, 102524.	3.6	5
226	Uncompensated losses and damaged livelihoods: Restorative and distributional injustices in Brazilian hydropower. Energy Policy, 2022, 167, 113048.	4.2	9
228	Feasibility of hybrid in-stream generatorâ€"photovoltaic systems for Amazonian off-grid communities. , 2022, 1, .		4
229	Fish Species Diversity From SomeÈ™ul Cald River: 50Years After Cascade Dam Constructions. Frontiers in Environmental Science, 0, 10, .	1.5	1
230	Rivers under pressure: Interdisciplinary feasibility analysis of sustainable hydropower. Environmental Policy and Governance, 2023, 33, 191-205.	2.1	1
231	The Global Surface Area Variations of Lakes and Reservoirs as Seen From Satellite Remote Sensing. Geophysical Research Letters, 2022, 49, .	1.5	5
232	Causes and consequences of recent degradation of the Magdalena River basin, Colombia. Limnology and Oceanography Letters, 2022, 7, 451-465.	1.6	6
233	Studies on Bloom Energy Server. Recent Innovations in Chemical Engineering, 2022, 15, 214-225.	0.2	0
234	Critical sectional area of surge tank based on bifurcation and chaos behaviors of hydraulic-mechanical coupling hydropower station. Nonlinear Dynamics, 2022, 110, 1297-1322.	2.7	2
235	The evolution of the modern dam conflict on the Snake River, USA. Water International, 2022, 47, 1349-1369.	0.4	2
236	Preparation of High-Performance Porous Carbon Materials by Citric Acid-Assisted Hydrothermal Carbonization of Bamboo and Their Application in Electrode Materials. Energy & Fuels, 2022, 36, 9303-9312.	2.5	19
237	Call Auction-Based Energy Management System with Adaptive Subsidy and Dynamic Operating Reserve. Sustainable Computing: Informatics and Systems, 2022, 36, 100786.	1.6	4
238	Framework for a more balanced consideration of hydropower development through ecosystem services assessment. Sustainable Production and Consumption, 2022, 33, 557-566.	5.7	7
239	Patterns of internal nitrogen and phosphorus loadings in a cascade reservoir with a large water level gradient: Effects of reservoir operation and water depth. Journal of Environmental Management, 2022, 320, 115884.	3.8	8
240	Learning from the Past: Lessons from the First United Nations Report on Problems of the Human-Environment. Challenges, 2022, 13, 44.	0.9	0
241	Techno-ecological synergies of hydropower plants: Insights from GHG mitigation. Science of the Total Environment, 2022, 853, 158602.	3.9	9

#	Article	IF	Citations
242	Time for decisive actions to protect freshwater ecosystems from global changes. Knowledge and Management of Aquatic Ecosystems, 2022, , 19.	0.5	8
243	Green Energy and Its Impact on Environmental Protection. Green Energy and Technology, 2023, , 59-70.	0.4	0
244	Exploring Effective Non-metal Inorganic Cocatalysts for the Photocatalytic Conversion of CO₂ Using H₂O as an Electron Donor. ACS Applied Energy Materials, 2022, 5, 11379-11385.	2.5	1
245	A comprehensive geospatial database of nearly 100â€‰000 reservoirs in China. Earth System Science Data, 2022, 14, 4017-4034.	3.7	33
246	Hydropower in the News: how Journalists do (not) Cover the Environmental and Socioeconomic Costs of Dams in Brazil. Environmental Communication, 2022, 16, 822-835.	1.2	2
247	Carbon dioxide flux in the drained drawdown areas of Three Gorges Reservoir. Frontiers in Environmental Science, 0, 10, .	1.5	1
248	Making use of the complementarity of hydropower and variable renewable energy in Latin America: A probabilistic analysis. Energy Strategy Reviews, 2022, 44, 100972.	3.3	10
249	Nonlinear hydraulic coupling characteristics and energy conversion mechanism of pipeline - surge tank system of hydropower station with super long headrace tunnel. Renewable Energy, 2022, 199, 1345-1360.	4.3	5
250	Hydropower in the Energy Market in Poland and the Baltic States in the Light of the Challenges of Sustainable Development-An Overview of the Current State and Development Potential. Energies, 2022, 15, 7427.	1.6	21
251	Opportunities to curb hydrological alterations via dam re-operation in the Mekong. Nature Sustainability, 2022, 5, 1058-1069.	11.5	12
252	Land use land cover analysis of the Great Ethiopian Renaissance Dam (GERD) catchment using remote sensing and GIS techniques. , 0, , 1-13.		3
253	Pesquisas sobre atingidos por barragens no Brasil. Terrae Didatica, 0, 18, e022024.	0.0	0
254	Increased efficiency of hydrokinetic turbines through the use of an obstacle on the channel bottom. Ocean Engineering, 2022, 266, 112872.	1.9	0
255	Clean, green and the unseen: The CompeSA framework | Assessing Competing Sustainability Agendas in Carbon Neutrality Policy Pathways. Global Transitions, 2022, 4, 45-57.	1.6	1
256	Disproportional erosion of the middle-lower Yangtze River following the operation of the Three Gorges Dam. Science of the Total Environment, 2023, 859, 160264.	3.9	6
257	Prefiguring <i>buen sobrevivir</i> : Lenca womenâ€™s (e)utopianism amid climate change. Journal of Peasant Studies, 2023, 50, 2232-2258.	3.0	2
258	Stability and dynamic response of two-stage hydropower stations cascaded by regulating reservoir. Renewable Energy, 2023, 202, 651-666.	4.3	2
259	High output performance flutter-driven triboelectric nanogenerator. Nano Energy, 2023, 106, 108106.	8.2	6

#	Article	IF	Citations
260	Safe passage for fish: The case for in-stream turbines. Renewable and Sustainable Energy Reviews, 2023, 173, 113034.	8.2	6
261	Decarbonization of ASEANâ€™s power sector: A holistic approach. Energy Reports, 2023, 9, 676-702.	2.5	10
262	Mobility of Al, Fe, Mn, Ti, and Organic Matter in Xingu River Sediments. International Journal of Science and Research Methodology, 0, , 25-46.	0.0	0
263	Advancing convergence research: Renewable energy solutions for off-grid communities. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	3
264	A framework for functional fish passage decision-making. Environmental Biology of Fishes, 0, , .	0.4	0
265	Effect of river damming on nutrient transport and transformation and its countermeasures. Frontiers in Marine Science, 0, 9, .	1.2	2
267	The impact of renewable energy technology innovation on energy poverty: Does climate risk matter?. Energy Economics, 2022, 116, 106427.	5.6	85
268	Small Hydropower Plantsâ€™ Impacts on the Ecological Status Indicators of Urban Rivers. Applied Sciences (Switzerland), 2022, 12, 12882.	1.3	13
269	Appraising the Waterâ€Energyâ€Food Nexus From a Sustainable Development Perspective: A Maturing Paradigm?. Earth's Future, 2022, 10, .	2.4	6
270	Anomaly Detection for Hydroelectric Generating Units by Fast Robust Random Cut Forest with Fast Feature Selection Considering Characteristics of Operating Data and Random Cut Trees. IEEJ Transactions on Industry Applications, 2022, 142, 916-927.	0.1	0
272	Freshwater species diversity loss embodied in interprovincial hydroelectricity transmission with ecological network analysis. Environmental Science and Pollution Research, 2023, 30, 39883-39893.	2.7	1
273	A Comparison between Supervised Classification Methods: Study Case on Land Cover Change Detection Caused by a Hydroelectric Complex Installation in the Brazilian Amazon. Sustainability, 2023, 15, 1309.	1.6	1
274	The potential for sustainable hydropower. , 2023, 1, 22-23.		5
275	RePP Africa â€“ a georeferenced and curated database on existing and proposed wind, solar, and hydropower plants. Scientific Data, 2023, 10, .	2.4	2
276	A global-scale framework for hydropower development incorporating strict environmental constraints. , 2023, 1, 113-122.		26
277	Direct hydrogenation of carbon dioxide to value-added aromatics. Coordination Chemistry Reviews, 2023, 478, 214982.	9.5	12
278	Stability behavior of load adjustment and primary frequency control of pumped storage power plant with upstream and downstream surge tanks. Journal of Energy Storage, 2023, 60, 106626.	3.9	3
279	Socio-Ecological Controversies from Chilean and Brazilian Sustainable Energy Transitions. Sustainability, 2023, 15, 1861.	1.6	1

#	Article	IF	Citations
280	Preparation, characterization and electronic properties of LaFeO3 perovskite as photocatalyst for hydrogen production. International Journal of Hydrogen Energy, 2023, 48, 14650-14658.	3.8	5
281	Impacts of existing and planned hydropower dams on river fragmentation in the Balkan Region. Science of the Total Environment, 2023, 871, 161940.	3.9	6
282	PLS-PM analysis of forest fires using remote sensing tools. The case of XurÃ©s in the Transboundary Biosphere Reserve. Ecological Informatics, 2023, 75, 102010.	2.3	3
283	A Perspective Review of Passive Techniques Applied to Control the Swirling Flow Instabilities From the Conical Diffuser of Hydraulic Turbines. Applied Mechanics Reviews, 2024, 76, .	4.5	3
284	Large-scale hydropower impacts and adaptation strategies on rural communities in the Amazonian floodplain of the Madeira River. Journal of Environmental Management, 2023, 336, 117240.	3.8	4
285	Comparative transcriptome analysis provides insights into the TDG supersaturation stress response of Schizothorax davidi. Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2023, 269, 109618.	1.3	1
286	Ecohydraulic modelling to evaluate cascade dam construction impact and support fish habitat restoration. Ecological Engineering, 2023, 192, 106974.	1.6	4
287	Hydrological impacts of dam regulation for hydropower production: The case of Lake Sibinacocha, Southern Peru. Journal of Hydrology: Regional Studies, 2023, 46, 101319.	1.0	1
288	New indicator of habitat functionality reveals high risk of underestimating trade-offs among sustainable development goals: The case of wild reindeer and hydropower. Ambio, 2023, 52, 757-768.	2.8	6
289	A Prompt Decarbonization Pathway for Shipping: Green Hydrogen, Ammonia, and Methanol Production and Utilization in Marine Engines. Atmosphere, 2023, 14, 584.	1.0	36
290	Sediment and Nutrient Trapping by River Dams: A Critical Review Based on 15-Year Big Data. Current Pollution Reports, 2023, 9, 165-173.	3.1	5
291	Patterns and drivers of water quality changes associated with dams in the Tropical Andes. Hydrology and Earth System Sciences, 2023, 27, 1493-1505.	1.9	1
292	An Introduction to Reservoir Ecotoxicology. , 2023, , 3-11.		0
293	Ensemble Deep Learning Model for Phase-Resolved Partial Discharge Diagnosis in Hydrogenerators. IEEE Transactions on Dielectrics and Electrical Insulation, 2023, , 1-1.	1.8	0
295	Key challenges of sustainable hydropower in the context of energy transition. , 2023, , 315-349.		0
296	A review on hydro energy. , 2023, , 471-497.		0
297	Wave, Tide and Hydropower Utilization and Sustainability. , 2023, , .		0
307	Pico-Hydro Turbine and Pump for Small Scale Agricultural Electrification and Irrigation: A Review of Similar Ventures. , 2022, , .		0

#	Article	IF	Citations
321	Enhancing the powering ability of triboelectric nanogenerator through output signalâ€™s management strategies. Nano Research, 2023, 16, 11783-11800.	5.8	6
322	Accurately Modeling Hydropower in the USA. Computer Aided Chemical Engineering, 2023, , 2821-2826.	0.3	0
325	Energy harvesting technology based on moisture-responsive actuators. Journal of Materials Chemistry A, 0, , .	5.2	1
326	Intelligent Monitoring of Hydropower Signals Based on Knowledge Graph. , 2023, , .		0
331	Wetlands Ecosystems. , 2024, , 581-599.		0
332	Wetlands and future changeâ€"Implications and opportunities with the Ramsar Convention. , 2023, , 555-561.		0
349	Driving Forces. , 2023, , 13-52.		0
354	Building resilience in South and Southeast Asian mega-deltas. , 2024, , 425-444.		0
357	Research Case Study for Hidden-Hydro. , 2023, , .		0
363	Large-Scale Land-Use Changes and the Amazonian Mammal Biota. , 2023, , 323-333.		0
370	Introduction to Renewable Sources and Technologies in Methanol Production. , 2024, , .		0
372	Hydro and Wind-Based Cogeneration Technologies. , 2024, , .		0