

Systematic review of flood and drought literature based on science mapping and content analysis – APPENDIX

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Table S1 represents a list of the abbreviations for the methods and indices used in the literature. These terms are used by the original authors and extracted by the content analysis approach.

Table S1. List of the abbreviations derived from the studied literature some of which might have been shown in the figures.

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| DFA: Detrended Fluctuation Analysis | SSM: Surface Soil Moisture |
| WSC: Water Storage Change | DFI: Drought and Flood Index |
| ONI: Oceanic Nina Index | DFY: Drought/Flood Year |
| WSDI: Warm Spell Duration index | RL: drought hazard |
| CDD: Maximum length of dry spell | CDD: Consecutive Dry Days |
| MATSIRO: Minimal Advanced Treatments of Surface Interaction and Runoff | GCM: General Circulation Model |
| TRIP: Total Runoff Integrating Pathways | DFC: Drought Flood Coexistence |
| GWD LR: Global Width Database for Large 495 Rivers | Dt: total potential disruption |
| CaMa Flood: Catchment Based Macro scale Floodplain | GRDC: Global Runoff Data Center |
| MIROC: Model for Interdisciplinary Research on Climate | GPD: General Pareto Distribution |
| SDII: Simple Daily Intensity Index | Q90: 90% discharge |
| EASMI: East Asian Summer Monsoon Index | IFR: Instream Flow Requirements |
| WASP: Weighted Anomaly of Standardized Precipitation | SPGI: Squared Poverty Gap Index |
| CDFM: Cumulative Departure from | PHCR: poverty head count ratio |
| Q: quadrant (used in some policy framework definitions) | PGI: Poverty Gap index |
| DFSAI: drought/flood sudden alternation index | VaR: Value at Risk |
| NSE: Nash and Sutcliffe efficiency index | KNN: K-nearest neighbor |
| PWQDC: potential water quality deterioration | WEIC: watershed evaluation index |
| LTMM: Long Term Monthly Mean | PDDC: potential drought damage |
| SSARR: Streamflow Synthesis and Reservoir Regulation | PFDC: potential flood damage |
| SPIsERS: SPIs+Evapotranspiration+Runoff+Soil | ES: Ecosystem Services |
| DPSIR: Driver–Pressure–State–Impact–Response | RWL: Restricted water Level |
| HSPF: Hydrological Simulation Program – Fortran | Mf: flood memory |
| CGCM3: Canadian Global Coupled Model | Md: drought memory |
| CBDRI: Community Based Disaster Risk Index | ML: Maximum Likelihood |
| EQWIN: Equatorial zonal Wind Index | PDS: Partial Duration Series |
| WWV: Warm Water Volume | EV: Extreme Value |
| ISMR: Indian Summer Monsoon Rainfall | GP: Generalised Pareto |
| PWM: Probability Weighted Moments | GEV: Generalised Extreme Value |
| ASS: Average Suspended Sediments | SWI: Soil water Index |
| IDW: Inverse Distance squared Weighted | T: Temperature |
| | P: Precipitations |
| | FDI: Flood Drought Index |

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| <p>MOWCATL: Minimal Occurrences With Constraints And Time Lags</p> <p>DWAAI: Dry-Wet Abrupt Alternation Index</p> <p>SCCS: Standard Cross-Cultural Sample</p> <p>MSME: Micro Small and Medium Enterprise</p> <p>GAR: Global Assessment Report on Disaster Risk Reduction j: time-related extreme rainfall indices</p> <p>GRDC: Global Runoff Data Center (observed data used as a comparison against modelled by watergap)</p> <p>WPSH: Western Pacific Subtropical High</p> <p>SDI: Spatial Data Infrastructure</p> <p>CMIP5: Coupled Model Intercomparison Project Phase 5</p> <p>WGEN: Weather Generator Model</p> <p>F: Encounter probability of flood occurrence</p> <p>D: Encounter probability of drought occurrence</p> <p>DFDMI: Drought and Flood Disaster Measurement Index</p> <p>UTFI: Underground Taming of Floods for irrigation</p> <p>SPI: Standardized Precipitation Index</p> <p>SDSM: Statistical Downscaling Model</p> <p>AGCM: Atmospheric General Circulation Model</p> <p>LECZ: Low Elevation Coastal Zone</p> <p>GRACE: Gravity Recovery and Climate Experiment</p> <p>WSDI: Water Deficit/Surplus Index</p> | <p>SOI: Southern Oscillation Index</p> <p>CRM: Climate Risk Management</p> <p>DRM: Disaster Risk Management</p> <p>CCA: Climate Change Adaptation</p> <p>SSN: Sunspot Number</p> <p>DSI: Drought Severity Index</p> <p>PET: Potential Evapotranspiration</p> <p>HW: Heat Wave</p> <p>ESM: Earth System Model</p> <p>SST: Sea Surface Temperature</p> <p>FDC: Flood Duration Curve</p> <p>DDC: Drought Duration Curve</p> <p>PWT: Pre-Whitening Trend</p> <p>Q-Q Plots: Quantile-Quantile plots</p> <p>CDD: Consecutive Dry Days</p> <p>CWD: Consecutive Wet Days</p> <p>GLDAS: Global Land Data Assimilation System</p> <p>TRMM: Tropical Rainfall Measuring Mission</p> <p>TWS: Terrestrial water storage</p> <p>EWH: Equivalent Water Height</p> |
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The following is the list of 119 selected papers for the systematic review.

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