**S4 Table. Covariate information.**

Presented here is a complete list of geospatial covariates with their associated temporal resolutions, sources, and references.

|  |  |  |  |
| --- | --- | --- | --- |
| **Covariate [ref]** | **Temporal resolution** | **Source** | **Original resolution** |
| Aridity [1,2] | Annual | Climatic Research Unit Time-Series (CRUTS) | .5 degree |
| Daytime land surface temperature [3] | Annual | MODIS | 5 km |
| Precipitation [4] | Annual | Multi-Source Weighted-Ensemble Precipitation (MSWEP) V2.1 | .1 degree |
| Distance to rivers >25m wide [5] | Static | Natural Earth Data (derived) | N/A  (vector of rivers) |
| Elevation [6] | Static | NOAA/NCEI | 1 km |
| Enhanced vegetation index (EVI) [7-10] | Annual | MODIS | 1 km |
| Urbanicity [11] | Annual | European Commission/GHS | 1 km |
| Tasseled cap brightness (TCB) [9,10,12,13] | Annual | MODIS | 1 km |
| Tasseled cap wetness (TCW) [9,10,12,13] | Annual | MODIS | 1 km |
| Slope for land surfaces | Static | NOAA/NCEI | 1 km |

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