**Precipitation trend**

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| **Title:** | Precipitation trend |
| **Component:** | Exposure |
| **Rationale:** | This is a longterm trend which indicates increasing or decreasing rainfall over the period of October-March; the main rain season in most parts of Malawi. Decreasing trends in precipitation (negative trends) over this growing season leads to decreased amount of rainfall required by crops and increases the likelihood of having more frequent dry spells and droughts. Decreasing rainfall generally represents a limiting factor for agriculture. |
| **Source Data Set:** | USGS CHIRPS;  ftp://chg-ftpout.geog.ucsb.edu/pub/org/chg/products/CHIRPS-2.0 |
| **Units:** | Units are mm/decade |
| **Computation:** | The precipitation data were subset to the Malawi national boundary extent using ArcGIS Extract by Mask tool using a 1km Raster Mask. Raster values were extracted using ArcGIS Extract Values to Points tool and the 1km centroids.  The output was exported to csv table for statistical analysis. Since the interest was on decreasing trends, all values above 0 were winsorized to 0. |
| **Statistics for raw data:** | Min=-69, Max=45; Winsorized Min=-69, Max=0 |
| **Scoring system:** | *Raster values were rescaled from 0-100 based on the winsorized min and max values of raw data. Since the trend is negative, values were inversed so that -69 became the high value (100) while 0 as 0.* |
| **Statistics for transformed data:** | Min=0, Max=100 |
| **Spatial Extent:** | Africa |
| **Spatial Resolution:** | 5km |
| **Year of Publication:** | 2015 |
| **Time Period:** | 1981-2014 |
| **Additional Notes:** | Climate Hazards Group InfraRed Precipitation with Station data (CHIRPS) is a 30+ year quasi-global rainfall dataset. Spanning 50°S-50°N (and all longitudes), starting in 1981 to near-present, CHIRPS incorporates 0.05° resolution satellite imagery with in-situ station data to create gridded rainfall time series for trend analysis and seasonal drought monitoring. As of February 12th, 2015, version 2.0 of CHIRPS is complete and available to the public. |
| **Date:** | July 2015 |
| **Format:** | GeoTIFF |
| **File Name:** | Precipitation trend |
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