**Temperature trend**

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| **Title:** | Temperature trend |
| **Component:** | Exposure |
| **Rationale:** | The trend in temperature indicates an increase in temperature. Increases in temperature, particularly for marginal areas will increase evapotranspiration leading to water stress and water demand. Regions with high temperature increase have experienced increased water demand and water stress. Further, increasing temperature can lead to increasing climate suitability for some diseases such as malaria in areas that are traditionally not known to be malaria suitable/stable. |
| **Source Data Set:** | USGS LandDAAC MODIS 1km 8-day nighttime LST; http://iridl.ldeo.columbia.edu/SOURCES/.USGS/.LandDAAC/.MODIS/.1km/.8day/.version\_005/.Aqua/.EAF/.Night/.LST/#info |
| **Units:** | Units range from 0.00 – 5.06 Deg. Kelvin equivalent to the same values in Deg. Celcius and represent temperature increases over the months of Oct-Mar from 2002-2014. |
| **Computation:** | The temperature 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. |
| **Statistics for raw data:** | Min=0.41, Max=5.05 |
| **Scoring system:** | *Raster values were rescaled from 0-100 based on the min and max values of raw data* |
| **Statistics for transformed data:** | Min=0, Max=100 |
| **Spatial Extent:** | Africa |
| **Spatial Resolution:** | 1km |
| **Year of Publication:** | 2015 |
| **Time Period:** | 2002-2014 |
| **Additional Notes:** | This trend was generated using the IRI Climate Data Library using the following script;  SOURCES .USGS .LandDAAC .MODIS .1km .8day .version\_005 .Aqua .SAF .Day .LST  X 32.0 36.5 RANGEEDGES  Y -8.0 -17.5 RANGEEDGES  T monthlyAverage  T 6 runningAverage  T (Oct-Mar) VALUES  a: :a:  [T]detrend-bfl  :a  sub |
| **Date:** | July 2015 |
| **Format:** | Grid |
| **File Name:** | Temperature trend |
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