

Climate data

In the North-East, the Namibian Meteorological Service has first-order weather stations at Katima and Rundu; in addition, rainfall data is collected at Andara. Other weather data was collected from the meteorological services in Botswana and Zambia for places around Caprivi so that isohyet maps could be interpolated for the Caprivi region.

Data collected include monthly rainfall figures and the number of days on which rain fell (raindays), minimum, maximum and average temperatures, daily relative humidity and daily evaporation figures.

The data is stored in the \climate folder. The folder is divided into four other folders:

- \climate\availdata which contains MS Excel files describing the evaporation, rainfall, humidity and temperature data that is available
- \climate\botswana which contains files of weather data for places in Botswana
- \climate\namibia which contains files of weather data for places in Namibia
- \climate\zambia which contains files of weather data for places in Zambia
- \climate\summary which contains files of summary data for all places pertinent to the Caprivi and gives the geographic co-ordinates of the places for which data is available

The original data from the three weather bureaux are in various formats but are of a file name consisting of uppercase letters, for example, RAINANDARA.wk1. The data was imported into MS Excel for manipulation. These files all have file names written in lowercase, for example, rainandara.xls. The filenames used are as descriptive as possible, i.e. rainandara gives the rainfall data collected at Andara.

Charts in \climate\availdata show what data is available for which places within and near Caprivi. A list of place names for which data is available and their co-ordinates is also given (\climate\summary\gazeteer.xls).

Data manipulation

Rainfall and rain variance maps

The long-term rainfall averages and the variance in rainfall (co-efficient of variance) were calculated for a number of places in Namibia, Botswana and Zambia. These values, calculated using a rain season running from October to September of the following year, and the co-ordinates of each place were saved as a Dbase file (\climate\isohyet\comprain.dbf) file and imported into ArcView. The values were interpolated (using the spline method) to produce a rainfall and rain variance map.

Graphs and charts

The long-term seasonal values for rainfall, raindays, and millimetres of rain per rainday were plotted for Katima (using the data in \climate\namibia\rainkatima.xls). The monthly averages and standard deviations were also calculated and plotted. Each season ran from October to September of the following year.

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