

3.10 VARIATION IN ANNUAL RAINFALL

Data ID

Description: Standard deviation in long term rainfall expressed as a percentage of the mean for the period

Chapter: Ch03 Climate

Geographical area: Namibia

Keywords: Rainfall
Variation

Notes on data, analysis and compilation, and source: Rainfall variation calculated as the standard deviation of annual totals as a percentage of average annual rainfall. To illustrate the co-efficient of variation, consider the following example: Take a location (station) with an average rainfall of 400 mm per year and a co-efficient of variation of 40%. A value of 40% means that the standard deviation is 160 mm ($40\% = (160/400)*100$), and that area would see annual rainfall totals of between 240 and 540 mm in two-thirds of all years. In the remaining third of all years, annual rainfall totals would be below 240 or above 540 mm.

This shapefile was created from an interpolated ESRI grid file. This grid file was created using data for almost 300 stations and came from the following report (available from www.the-eis.com):
Namibia Resource Consultants. 1999. Rainfall distribution in Namibia: Data analysis and mapping of spatial, temporal, and Southern Oscillation Index aspects. Windhoek: Ministry of Agriculture, Water and Rural Development.

Note that COV was calculated using actual station data due to problems posed by available raster datasets such as FEWS and CHIRPS. While CHIRPS data tend to be closer to expected values inland and in comparison to FEWS, they fall down at the coastal zone where very little year on year variation is indicated by the raster values in this area. This does not follow the trends from actual recorded (rather than modelled) rainfall at stations on the ground and the resulting raster would provide an incorrect indication of rainfall variation across the country.

Data resolution and notes

Resolution: Interpolated tif using data from 300 rainfall stations

Data types included: Vector Raster and Excel

Spatial reference

Projection:

Fields

<i>Field name</i>	<i>Field description</i>
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