

DROUGHTS AND FLOODS

ARE THEY ALIEN TO CLIMATE OR PART THEREOF?

“A Climatologist’s brief view of Namibia’s Mariental 2000 Flooding Event”

By

Sepiso Mwangala

Climate & Data Bank Section

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Abstract

Rainfall climatology has two distinct performance extremes, namely droughts and floods. While other levels of performance are important, it is these extremes that by far impact most adversely on society. Droughts often cause crop failures with the resultant mass famines and population displacements. On the other extreme end of the scale, floods also destroy crops, cause population displacements and other forms of social dislocations, including loss of life and property. For these and other reasons, studies of rainfall characteristics, including extremes are always of great interest in climatology.

This article is a very brief view of the rainfall climatology of Namibia’s Mariental area, the focus of attention in February 2000 due to the unusual flooding incident. It includes the performance extremes that give rise to possibilities of droughts and floods, and discusses the area’s rainfall at monthly and seasonal scales, as well as at the 10-day near real-time scale used by the Meteorological Service for rainfall monitoring during the rainy season. For all the time scales used, the normal patterns are established and compared with the performance of the 1999/2000 rainy season. Quantitative evidence re-asserts the area’s vulnerability to droughts and, to a lesser extent, to flash floods too. Although the opposite phenomena’s recurrence intervals are not ascertained, they should be considered as recurrent properties of the area’s climate.