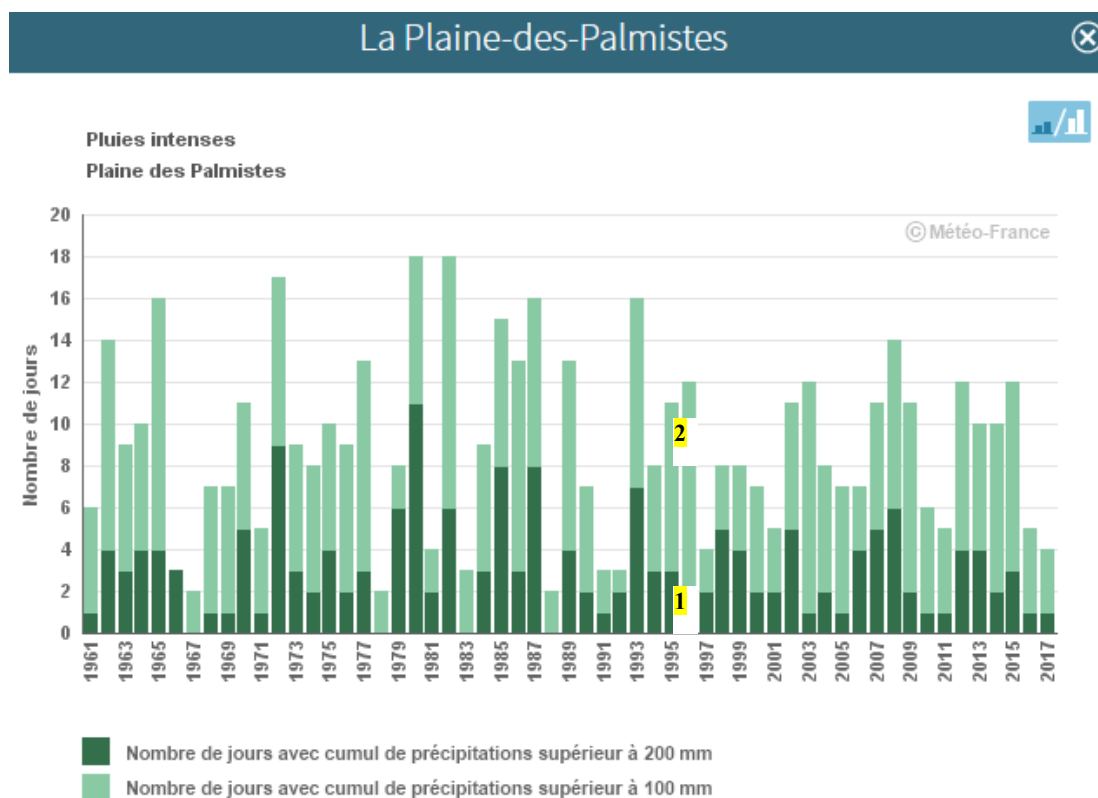


## Evolution of the number of heavy rain days Past climate - Reunion Island

### 1. Graph reading aid



2 data series are represented on the graph:

**Series 1** 'dark green histogram':

Annual number of very heavy rain days at the station since 1961. In this example, the year with the highest number of events is 1980 (11 events).

**Series 2** 'green histogram':

Annual number of heavy rain days at the station since 1961. In this example, the years with the highest number of events are 1980 and 1982 (18 events).

### 2. Definitions

Daily rainfall amount: quantity of rainfall collected between D-day at 7am local time and D+1 day at 7am local time.

Heavy rain day: day with a daily rainfall amount greater than 100mm.

Very heavy rain day: day with a daily rainfall amount greater than 200mm.

### 3. Data and methods

#### Homogenized series:

Data series are not directly usable for analysing climate change. They are affected by changes in measurement conditions over time, such as movements of the measuring station, or changes in sensors. These changes cause breaks, which can be of the same order of magnitude as the climate signal. Homogenization is a statistical treatment that consists of detecting and correcting breaks in measurement series in order to produce reference series adapted to quantify climate change.

#### Daily reference series :

Homogenization applies to monthly average data series. The homogenized series therefore do not allow to analyze the evolution of daily extremes, such as the number of days with temperature exceeding a threshold.

The daily reference series are data series with no detected break in the process of homogenization, which were selected for their quality. They may start later than the homogenized series, if they do not fit the quality criteria at the beginning of the period.

For indicators related to daily rainfall amounts, 6 daily reference series were selected in Reunion Island, according to criteria of availability, quality and representativeness.

### 4. References

The extreme rainfall site of Météo-France in Reunion Island

<http://pluiesextremes.meteo.fr/lareunion/>