

## PREFACE.

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**P**REVIOUS to the year 1890 there were large differences in the hour of measuring rainfall, in the form of rain-gauge and the methods of registering rainfall in the different provinces of India. The want of uniformity in the methods of registering rainfall was due to the fact that the establishment of rain-gauge stations and the collection of the data were commenced many years ago by the Revenue departments of the various Local Governments. Each Government naturally established the system which was thought at the time best suited to local conditions and requirements. The disadvantages became more and more evident from year to year, and at length the Government of India in 1890, after a careful consideration of the question, ordered the following changes to be made in order to secure the uniformity of system that appeared to be desirable:—

- 1st.*—That a common hour for registration, *viz.* 8 A.M., and a common rainfall week ending on Saturday 8 A.M., should be adopted throughout the whole of India.
- 2nd.*—That all rain-gauges should be systematically inspected, the services of the Meteorological Reporter to the Government of India being utilized for supervision of the duty of inspection wherever this is considered desirable.
- 3rd.*—That Symons' rain-gauges, tested by the Meteorological Department, should be the only description of gauge used.
- 4th.*—That monthly returns of rainfall be published by each Local Government, of which copies should be bound together and issued as annual volumes by the Imperial Meteorological Department.
- 5th.*—That the Imperial Meteorological Department should adopt a fixed division of the year into four periods corresponding with the periods of general rainfall for purposes of comparison.
- 6th.*—That for the purpose of calculating the number of rainy days a fall of one-tenth of an inch and upwards should be taken to denote a rainy day.

The whole of these changes came into effect from the 1st January 1891.

The present volume contains the monthly statements of rainfall published by the various Local Governments for the year 1891, and gives practically the whole of the available rainfall data for that year of the Indian Empire. Symons' rain-gauges were in use at the great majority of stations during the whole of the year, and the remaining stations were, with very few exceptions, provided with Symons' rain-gauges (the receivers of which are 5 inches in diameter) during the year. The rainfall was measured throughout the year at all stations daily at 8 A.M., and the entries for each day in the tables give the rainfall of the 24 hours preceding 8 A.M. of the date in question.

The tables are arranged according to provinces, and not according to months, that is, the whole of the rainfall data of each province is given together, and the provinces are arranged so far as possible in the order adopted in the Daily Weather Report and other publications of the department.

The tables are drawn up in a form that, it is hoped, will explain themselves. It should be carefully noted that, although the rainfall is measured to hundredths of an inch, a rainy day is assumed to be that on which a tenth of an inch or upwards has fallen, and the figures in the column "Total number of rainy days," and "Normal total number of rainy days" are calculated on this supposition.

It may be noted that in connection with these changes the whole of the available rainfall data of the Empire was collected and tabulated in the India Meteorological Office, and the average monthly rainfall and number of rainy days in each month were calculated for all stations for which at least five years' rainfall data were available. In the great majority of cases the rainfall data extend back to twenty or thirty years. The averages obtained in this way are utilized for the columns of normal data and for the comparisons of normals with actuals in the tables.

JOHN ELIOT,  
*Meteorological Reporter*  
*to the Government of India.*