

P. C. MAHALANOBIS : CHARACTERISTIC FEATURES OF RAIN STORMS AND
RIVER FLOODS IN ORISSA

The deltaic area in the province of Orissa has been subject to frequent periodic floods. At the request of the Provincial Government a statistical study of the problem was undertaken by the

author, and a report was submitted which will be published by the Orissa Government. In this paper a brief account has been given of certain applications of statistical methods for studying the track and velocity of the rain storms; and the velocity of flow of flood water which has been determined by two independent methods giving consistent results.

In conclusion the author has observed that the river floods are caused by the heavy rain given by storms and depressions which originate in the Bay of Bengal and move across the Orissa delta and the river basins in a west-north-westerly direction. The rainfall in the period immediately preceding floods, occurs in well-marked patches, of very heavy and moderately heavy rain; heavy rain first occurring in the delta and then gradually moving to the catchment area. There is a definite lag between the rainfall and the flood water reaching the basin at Naraj and the lag can be utilized to issue forecasts sufficiently in advance of actual floods.