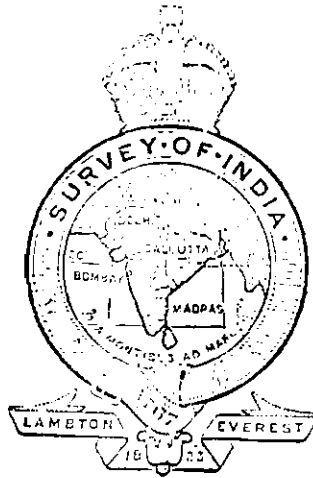


SURVEY OF INDIA  
GENERAL REPORT  
1929 TO 1930



From 1st October 1929  
To 30th September 1930.

PUBLISHED BY ORDER OF  
BRIGADIER R. H. THOMAS, D.S.O.  
SURVEYOR GENERAL OF INDIA.

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Printed at the Photo-Litho. Office,  
Survey of India,  
CALCUTTA,  
1930.

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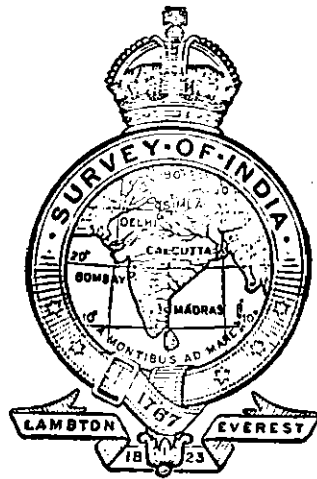


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One Shilling and Nine Pence.

**SURVEY OF INDIA**  
**GENERAL REPORT**  
**1929 TO 1930**

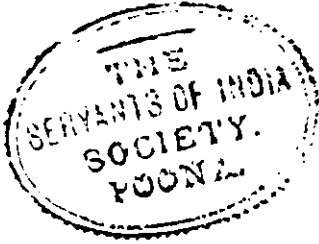


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## PREFACE.

### THE WORK OF THE SURVEY OF INDIA.

The department is primarily responsible for all topographical surveys and explorations, and for the maintenance of geographical maps of the greater part of Southern Asia. Also for geodetic work, which includes:—the main trigonometrical framework, extending in some cases far beyond the frontiers of India, and control networks of precise levelling based on tidal observatories; tidal predictions and the publication of tide tables for nearly 40 ports between Suez and Singapore; the magnetic survey; astronomical, seismographic, and meteorological observatories at Dehra Dūn; and geodetic investigations of an international character, in regard to which India enjoys a unique position between the greatest highlands of the world and a deep ocean extending to the Antarctic. Indian geodesy has thus disclosed by far the largest known anomalies of gravitational attraction in the earth's crust, and these have led to some of the most important developments of modern geodetic research, whilst the Great Trigonometrical Survey of India enjoys an international reputation for its very valuable contributions to estimates of the size and figure of the earth. The calculations of astronomy and some important data in physics depend ultimately on these terrestrial measurements.

In the past the department has also carried out the original large scale revenue surveys for most of India, and was still conducting this work for Central and Eastern India and Burma up to 1905, when all revenue surveys were handed over to the Provinces concerned, together with officers and staff as required, in order to concentrate the energies of the department on a complete new series of modern topographical maps on the 1-inch to 1 mile scale. It was hoped to complete this series by 1930, but owing to retrenchment and the war little more than half has been done up to date, in spite of the reduction of the scale of survey for less important areas. Thus, although new surveys covering an area about equal to that of England are carried out every year, the maps of half the country are still very old and only kept up to date roughly by means of rather perfunctory information supplied by local officials; the old maps are also about two miles out as regards geographical position, being based on a longitude of Madras determined in 1815.

Boundary surveys and records of international, state, and provincial frontiers have always formed an important item of topographical work; and in recent years there has been considerable progress in the preparation of Guide Maps for important cities and military stations, where the 1-inch to 1 mile scale is quite inadequate.

*Miscellaneous.* While expending on topographical and geodetic work all funds allotted by Imperial Revenues, the department is steadily developing the policy of aiding local surveys in various ways, on payment by those concerned. These miscellaneous operations include: all forest and cantonment surveys; many riverain, irrigation, railway, and city surveys, and surveys of tea gardens, mining areas, &c., with a great deal of control levelling for the same; administrative assistance and officers are also given in aid of the revenue surveys of various Provinces and States. The Printing Offices do much work for other Government departments, such as printing special maps, illustrations for Archeological Reports, all diagrams for Patents, &c. The Mathematical Instrument Office gives valuable aid to all Government departments by maintaining a high standard of instrumental equipment, especially in connection with optical work, and by the manufacture and repair of high-class instruments which would otherwise have to be imported from abroad.

*Military, &c.* The department is also responsible for all survey operations required by the Army, and has been rapidly developing measures to meet the greatly increased complexity of modern military requirements, especially in connection with air-survey. In view of its high military importance, air-survey work for various civil purposes is receiving all possible encouragement and assistance, while the latest methods of stereo-photography are being studied experimentally.

*Administration* is by the Surveyor General under the Education, Health and Lands Department of the Government of India. The Headquarters Office is at Calcutta under the Assistant Surveyor General, and there are seven Directors, one for each of the five Survey Circles into which the country is divided, one for the Geodetic Branch at Dehra Dūn, and one for the Map Publication and other technical offices at Calcutta.

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