

Survey of India.
GENERAL REPORT,
1916-17.

From 1st October 1916
To 30th September 1917.



PREPARED UNDER THE DIRECTION OF
COLONEL SIR S. G. BURRARD, K.C.S.I., R.E., F.R.S.,
SURVEYOR GENERAL OF INDIA.

PRINTED AT THE PHOTO-LITHO. OFFICE, SURVEY OF INDIA,
CALCUTTA,
1918.

Rupees or Two Shillings and Eight Pence.

Survey of India.

GENERAL REPORT,

1916-17.

From 1st October 1916
To 30th September 1917.



PREPARED UNDER THE DIRECTION OF
COLONEL SIR S. G. BURRARD, K.C.S.I., R.E., F.R.S.,
SURVEYOR GENERAL OF INDIA.

PRINTED AT THE PHOTO-LITHO. OFFICE, SURVEY OF INDIA,
CALCUTTA,
1918.

PRINTED AT THE
PHOTOGRAPHIC AND LITHOGRAPHIC OFFICE, SURVEY OF INDIA.
14, WOOD STREET,
CALCUTTA.

AGENTS FOR THE SALE OF INDIAN OFFICIAL PUBLICATIONS.

LONDON.

A. CONSTABLE & Co., 10, Orange Street,
Leicester Square, W.C.
P. S. KING & SON, 2 and 4, Great Smith
Street, Westminster, S.W.
KEGAN PAUL, TRENCH, TRÜBNER & Co.,
68, Carter Lane, E.C.
B. QUARITCH, 11, Grafton Street, New Bond
Street, W.
HENRY S. KING & Co., 65, Cornhill, E.C.
GRINDLAY & Co., 54, Parliament Street, S.W.
T. FISHER UNWIN, LTD., 1, Adelphi Terrace,
W.C.
W. THACKER & Co., 2, Creed Lane, Ludgate
Hill, E.C.
LUZAC & Co., 46, Great Russell Street, W.C.

EDINBURGH.

OLIVER AND BOYD, Tweeddale Court.

DUBLIN.

E. PONSONBY, LTD., 116, Grafton Street.

OXFORD.

B. H. BLACKWELL, 50 and 51, Broad Street.

CAMBRIDGE.

DEIGHTON, BELL & Co., LTD., Trinity Street.

ON THE CONTINENT.

ERNEST LEROUX, Rue Bonaparte,
Paris - France.
MARTINUS NIJHOFF, The Hague - Holland.

FOR MAPS ONLY.

LONDON.

EDWARD STANFORD, LTD., 12-14, Long Acre,
W.C.

INDIA.

THACKER, SPINK & Co., No. 3, Esplanade,
East, Calcutta, and Simla.

NEWMAN & Co. No. 4, Dalhousie Square,
Calcutta.

LAL CHAND & SONS, No. 76, Lower Circular
Road, Calcutta.

THE MANAGER, THE INDIAN SCHOOL SUPPLY
DEPÔT, No. 309, Bow Bazar Street,
Calcutta, and Dacca.

RAI SAHIB M. GULAB SINGH & SONS,
Lahore.

THACKER & Co., LTD., Bombay.

D. B. TARAPOREVALA SONS & Co., Bombay.

HIGGINBOTHAMS, LTD., Madras.

PROPRIETOR, MAFASILITE PRINTING WORKS,
Mussoorie.

COCKBURNS AGENCY, Srinagar.

CURATOR, GOVERNMENT BOOK DEPÔT,
BURMA, Rangoon.

BURMAN & Co., Muzaffarpur.

CONTENTS

		PAGE.
PART 1.—GENERAL REMARKS—	I.—Introduction	1
	II.—Administration and Personnel	3
	TABLE I.—Disposition of Officers	5
 PART 2.—WORK OF FIELD PARTIES, &c.—		
I.—TOPOGRAPHICAL SURVEYS	TABLE II.—Progress since 1905	9
	TABLE III.—Out-turns and costs	10
	Northern Circle	12
	Southern Circle	13
	Eastern Circle	14
II.—FOREST SURVEYS.—	Northern Circle	16
	Southern Circle	16
	Eastern Circle	16
III.—CANTONMENT AND LARGE-SCALE SURVEYS.—No. 1 Party	No. 2 Party	17
	No. 3 Party	17
	Punjab Riverain Detachment	17
	Cantonments	18
	IV.—TRIGONOMETRICAL SURVEYS ..	Astronomical Latitudes
	Pendulum Observations	20
	Triangulation	20
	Tidal Operations	21
	Levelling	22
	Base Lines	23
	Magnetic Survey	23
 PART 3.—OFFICE WORK—		
I.—HEAD QUARTER OFFICES	Map Publication Office	25
	Map Record and Issue Office	28
	No. 1 Drawing Office	29
	Engraving Office	30
	Photo.-Litho. Office	31
	Mathematical Instrument Office	33
II.—DEHRA DUN OFFICES.—	TABLE IV.—Publications during the year	34
	Trigonometrical Survey Office	35
	No. 2 Drawing Office	36
	Forest Map Office	38
III.—CIRCLE AND LOCAL DRAWING OFFICES.—		39
 PART 4.—WORK FOR OTHER GOVERNMENT DEPARTMENTS—		
		41

INDEX MAPS (bound at end of Report).

1. Modern surveys and publication, Northern Circle.
2. " " " " Southern "
3. " " " " Eastern "
4. Publication of modern one-inch series, Northern Circle.
5. " " " " Southern "
6. " " " " Eastern "
7. " provisional editions of one-inch series, Northern Circle.
8. " " " " Eastern "
9. " modern half-inch series for India.
10. " " quarter-inch " "
11. " 'India and Adjacent Countries' series, scale $\frac{1}{1,000,000}$.
12. " Indian sheets of "La Carte Internationale du Monde," scale $\frac{1}{1,000,000}$.
13. " 'Southern Asia' series, scale $\frac{1}{2,000,000}$.
14. Progress of the Great Trigonometrical Survey.