## INTRODUCTORY

The present publication is intended to furnish a record of the topographical surveys accomplished in the course of the three expeditions which carried me from the northernmost border of the Indian Empire on the Pāmīrs through the whole length and breadth of Chinese Turkistān, as comprised between the K'un-lun and T'ien-shan ranges, and thence into westernmost China. These journeys, undertaken by me under the orders of the Government of India, had archæological exploration for their primary object; but from the first I was equally anxious also to use all possible opportunities for geographical work.

That I was able to realize this aim by means of systematic surveys over the whole of the ground covered by these protracted travels,—an area extending in its extreme limits from the 75th to the 102nd degree of longitude and from the 35th to near the 44th degree of latitude,— is due mainly to the generous help accorded by the Survey of India. It deputed with me experienced Indian surveyors of proved ability and energy, provided instruments, equipment and funds to meet the cost of their employment and, last but not least, compiled the results of our surveys, which comprised continuous plane-table work by my assistants and myself as well as, where conditions would permit, triangulation and astronomical observations. For the aid thus given to my efforts I cannot feel too grateful.

On the return from my third expedition, early in 1916, Colonel Sir Sidney Burrard,

R.E., then Surveyor General, whose unfailing interest and experienced guidance had from the beginning greatly facilitated those labours, approved the proposal made with the support of Colonel (now Sir) G. P.

Lenox-Conyngham, R.E., his successor as Superintendent, Trigonometrical Survey, that the topographical results of that expedition should be published in a series of maps embodying also the surveys of my previous Central-Asian journeys, though these had already received cartographical record.

Thus the new maps have come to comprise a vast region of innermost Asia, well-defined in its chief physical features and uniformly surveyed in accordance with the methods which the Survey of India's accumulated experience has shown to be most suitable for 'reconnaissance survey' work. Within the limits of these maps appear unsurveyed and in many cases wholly unexplored areas, a fact fully accounted for by the exceptional physical difficulties of access to the great forbidding deserts and the high mountain ranges, almost equally desolate, constituting the major portion of the ground. But no less striking than the extent of uninhabitable wastes within this vast region is the uniformity which prevails in the physical characteristics of its chief zones.

Wherever we travelled, whether in the barren mountain ranges which enclose the Tarīm basin, in the drainageless areas forming its continuation eastwards, through the great deserts of drift-sand or gravel which fill their depressions for the most part, or in the narrow stretches of cultivable ground to be met between them, it had been my constant endeavour to make our surveys as careful and detailed a record of the prevailing physical features as limitations of scale, available time, training, etc., would permit. It is, therefore, particularly gratifying to note that improved methods of drawing and reproduction have allowed in the new maps a clearer and fuller representation of that record than was possible in previous publications.