PREFACE.

The system of transliteration used in the present volume is that which has been adopted in the Gazetteer of the North-Western Provinces. For the vowels it is briefly as follows:

\[ \begin{align*}
\text{a} & \text{ as in 'woman.'} & \text{u} & \text{ as in 'pull.'} \\
\text{é} & \text{ 'father.'} & \text{é} & \text{ 'rule.'} \\
\text{ê} & \text{ 'grey.'} & \text{æ} & \text{ 'isle.'} \\
\text{i} & \text{ 'bit.'} & \text{o} & \text{ 'hole.'} \\
\text{é} & \text{ 'machine.'} & \text{æ} & \text{ as 'œ' in 'house' (nearly).}
\end{align*} \]

The original plan of this Memoir provided for a thorough examination of the country between the Tons and the Káli somewhat on the plan of Tennent's Ceylon, and in addition a less detailed summary of our knowledge of the Himálaya-Tibetan region. It was believed that only thus could the physical unity and with it the historical connections of the entire region be correctly understood. From or through the Himálaya came the pre-Aryan and Aryan races now inhabiting India, as well as the successive waves of Baktrian, Skythian, and Musalmán invaders who have conquered India in historical times. As we shall see hereafter, forms of belief having their origin in or beyond the Himálaya have influenced the religious systems of India from the earliest ages to the present day, so that for the political and religious history of the plains an adequate conception of the physiography, ethnography, and history of the Himálaya-Tibetan tract is a necessary preparation. It is to be regretted that this extended programme cannot be carried out, but the pressure of official duties prevents its completion, and all that can now be attempted is to work up the materials that have been collected for the Himálayan districts of the North-Western Provinces. At the end of Chapter I. will be found a series of 'References' to materials illustrating the history and resources of the Himálaya from Asám to Afghánistán. These were collected in continuation of a plan suggested by Mr. R. N. Cust in 1866 for the preparation of a 'Catalogue raisonné of every kind of printed information connected with the North-Western Provinces;' and I certainly know of no better aid to good administration than an index to the special and local reports of those engaged in it. The necessity for such a catalogue has ceased in great part with
the publication of the District Memoirs, but there are subjects of
general importance which the publication of the local accounts does
not subserve. One of these is the history, using this word in its
widest sense, of the Himalaya-Tibetan region, and I offer the refer-
ences as the nucleus of a complete index to our knowledge of its
physiography, products, peoples, and institutions.

As observed in the foot-note to Chapter I., much remains to be
done, but at the same time very much more has been accomplished
than is generally known. Scientific and economic botany have
been carefully explored; the chapter on economic mineralogy leaves
little to be desired: those on meteorology and geology have been
brought up to the level of our present scientific knowledge; and the
introduction to physical geography gives a popular and suggestive
summary of the information that we possess, whilst the references
afford a guide to materials for the study of details. All this is new,
or embodies information buried in correspondence and reports, and
practically as inaccessible to the public as if it had never been com-
mitted to writing. To General Richard Strachey I am indebted
for the use of an unpublished work of his own on the physical
 geography of the Himalaya, which has been specially made use of
in the chapters on 'Geology' and 'Meteorology.' Mr. H. B. Med-
licott, Superintendent of the Geological Survey of India, prepared
the chapter on 'Geology,' and Mr. S. A. Hill, Meteorological Re-
porter to the Government of the North-Western Provinces, contrib-
buted the valuable chapter on 'Meteorology.' Dr. King, Superin-
tendent of the Royal Botanical Gardens, Calcutta, furnished the
list of the flora of Western Garhwal, Dehra Dún, and Jaunsär-
Báwar, and Dr. Watson, the list for Eastern Garhwal, Kumaon, and
the Bhábar. To General Strachey I am further indebted for the
list of plants collected by himself and Mr. Winterbottom in Ku-
maon, Garhwal, and the neighbouring parts of Tibet, and which
has never before been published. This list has been admirably
edited by Mr. F. Duthie, Superintendent of the Botanical Gardens
at Saharánapur, to whom also I am indebted for the sketch of the
history of the Tea industry in the Himalayan districts. The sheets
of the portions relating to economic botany have had the criticism
of Dr. Watson and Mr. Duthie; and for the forest history Mr.
Greig and Major Garstin have advised me in many matters of detail.
PREFACE.

Of the maps, the map of Kumaon was prepared under the instructions of Colonel Walker, R.E., Superintendent of the Great Trigonometrical Survey, and is the result of great labour and care for detail: indeed, a less accurate map might possibly be more useful. The great ‘one-inch to one-mile’ sheets were photographed down to a smaller scale and sent to me. I then obtained the correct names in Hindi of all the villages, rivers, &c., in Kumaon and Garhwal (about 8,000) and entered against each the correct transliteration for use in a new edition of the large maps, and then drew up a draft list of names for the district map. I desired to enter the names of all halting-places on every ordinary route; villages in which the patwári usually resides; places of note; trade-centres; and all villages containing over one hundred inhabitants. After much trouble, correspondance, and inquiry, this was fairly accomplished. The villages retained were marked off on the photographic copies of the maps, and these were returned to the Surveyor-General with lists showing the actual and revised spelling for the further compilation. In addition, the principal lines of road have been laid down, and for the first time the pattis or subdivisions adopted at the recent settlement by Mr. J. Beckett have been shown. In the trans-Himalayan portion to which the survey had not extended I have added places from the village maps prepared by the patwáris, and in their selection was aided by Mr. Beckett. The map of the Himalaya-Tibetan region is taken from one prepared by Mr. Trelawny Saunders, omitting the eastern portion. The geological map is a revised copy of that which accompanied General Strachey’s paper ‘On part of the Himalaya Mountains and Tibet’ read before the Geological Society in 1851. It may be necessary to explain that these volumes are not intended to be solely a popular account of the districts which they describe, but to contain, first of all, a record of all facts of permanent scientific or economic value that have been gathered by me during my visits to Kumaon and the Dehra Dún or which have been contributed by others. This work has occupied my leisure time for several years, and I can only hope that the labour and care bestowed on it will be of some use to my successors, and enable them to produce a more worthy record for those who are truly interested in the moral and material progress of the North-Western Provinces.

Bombay, 17th December, 1881.

E. T. ATKINSON.