

On the Lower Course of the Brahmaputra or Tsanpo.
By Lieut.-Col. H. H. GODWIN-AUSTEN.

The author gave his reasons for supposing that the great river Subansiri was the outlet of the Tsanpo. Whilst engaged in the survey operations of 1875-6 in the Duffa Hills, he could not, after looking north into the mountain region from the two highest peaks then visited, avoid being impressed with this idea. From the two peaks of Tornputu, 7300 ft., and Shengarh, 6700 ft., lying on the high outer ranges, the great main valleys on the north were well seen, and could be laid down on the Plane Table with very considerable accuracy, even to very great distances, as all the conspicuous peaks up to the snowy range and several of its summits were intersected upon it. The finest view of this area was obtained from Shengarh, where he was detained for several days by heavy rain. During this interval a party of sappers and his Khasi coolies completely cleared the peak, which was covered to the summit with grand forest growth, so that the view was unimpeded in every direction on the bright clear day that rewarded their labour. Continuous observation revealed the run of the main ranges and ridges and the position of the deep valleys. The valley of the Subansiri was well traced, with its two main branches; one from the north-west, near lat. 28°, long. 93°, had its sources among the high mass of snowy peaks (23,000 ft.), so well seen from the valley of Assam near Tezpur, while another deep depression in the mountains lies just east of long. 94°, and joins the first near lat. 27° 40'. The first of these the author took to be the tributary crossed by the native explorer Nain Singh on his way into Tawang from Lhasa, and the other he believed might be the Tsanpo. Other considerations in support of this view were the following:—1, the temperature of the Lohit or Subansiri where it joins the Brahmaputra is lower than that of any other tributary of that river, this being especially noticeable during the rains, *i. e.* in June and July; 2, Mr. J. O. N. James, Assistant Surveyor-General, says it is borne out by the Revenue Survey Map of the District Sakluinpur, into which the Subansiri enters after leaving the hills; 3, Lieut. Harman, R.E., after seeing the Dihong at its junction with the eastern branch of the Brahmaputra near Sudiya, considers the Subansiri to have the largest body of water; 4, the Pundit Nain Singh could trace the Tsanpo, where he crossed it, for thirty miles east, and thence it flowed south-easterly, which would take it towards the great valley observed by the author; and 5, the hill people, on being questioned by Lieut. Harman, gave evidence which tended to show that the Subansiri and Tsanpo are the same, and that the Dihong is not the Tsanpo, as geographers at present generally believe.

On the River Kingani in East Africa.

By F. HOLMWOOD, Assistant Political Resident at Zanzibar.

This river, which was thoroughly examined by the author in July 1870, disembogues opposite the island of Zanzibar, and was long classed as one of those hopeful-looking rivers which it was trusted might become highways to the interior; but, like the Rovuma, the Wami, and others, it has been found, though not absolutely unnavigable, not to fulfil the expectations excited by the appearance and extent of its waters. The author ascended the stream in the Church Missionary Society's yacht for 120 miles. Its lower course was found to be broad and shallow; its waters in this part inundating the adjoining flat country during the rains, and giving rise to the virulent swamp fever, which desolates the coast region in the neighbourhood of Bagamoyo during the greater part of the year. In ascending the river the average depth for the first 20 miles was found to be 18 feet, shallowing to 12 feet for 10 miles further. Its breadth averages 200 yards up to the first ferry (Kiyuko) and 160 yards up to Kingwero ferry. Beyond the latter point hippopotami abound, and the width of the stream contracts to 70 yards, the navigation being also obstructed by snags and sunken trees, which leave only narrow passages, through which the water rushes like a sluice. The banks in the lower part are inhabited by the coast Suahili people; beyond the district of Uzaramo commences,