

branch inside an island had the breadth of 4.70 m., a mean depth of 0.234 m., a mean velocity of 0.111 m. and a volume of 0.12 cub. m. per second. The whole *Gartang* River, therefore, in the afternoon of November 11th, 1907, carried a volume of 6.67 cub. m. per second.

The left or uppermost *Indus* branch was 27.5 m. broad, had a mean depth of 0.304 m., a mean velocity of 0.678 m. and a volume of 5.67 cub. m. per second. The right *Indus* branch was 32.7 m. broad, had a mean depth of 0.288 m., a mean velocity of 0.437 m. and a volume of 4.11 cub. m. per second. The maximum depth of the four branches was, for the *Gartang*, 0.78 m., for the little branch 0.31 m., for the upper *Indus* branch 0.51 m. and for the lower *Indus* branch 0.48 m. The *Gartang* is, therefore, deeper than the others. The *Indus* branches remain shallow on account of the greater quantities of solid material they are bringing down to its delta across the valley.

The result is, therefore, that the *Gartang* River had 6.67 cub. m., and the *Singi-kamba* 9.78 cub. m. per second. At the date of measurement, the *Singi-kamba* carried 3.11 cub. m. more water each second than the *Gartok* branch. The relation between the two source branches of the *Indus* was, therefore, nearly as two to three, the *Gartang* being only $\frac{2}{3}$ of the *Singi-kamba*. The latter is thus the source branch of the *Indus*. It is also the longer of the two. This result perfectly agrees with my deductions in Vol. II of this work, p. 211, where I have described »The Source of the Indus».¹

A measurement like this, undertaken in the beginning of November, will give a more exact idea of the capacity of the two rivers in relation to one another, than a measurement carried out during the rainy season or in the spring when the snow melts. During the winter no differences in the meteorological or climatological relations will influence the comparison between the two rivers. They live their life under exactly the same conditions. No precipitation will occasionally make the one bigger than the other. The temperature is low within both areas. All springs and smaller feeders are frozen. The situation will perhaps only be more disadvantageous for the *Singi-kamba*, in so far, that this river flows at a greater absolute altitude, and, therefore, is exposed to severer cold. Its small feeders and brooks from springs in side valleys, will, therefore, cease to deliver their tribute to the river at an earlier date. In spite of this fact, we have found the *Singi-kamba* to be the larger of the two.

On the other hand, it is very likely that the *Gartang*, during the rainy season, is the larger river, and if measurements were made every day in the course of a year, it is possible, nay probable, that the annual volume of the *Gartang* would

¹ Cp. also my personal narrative *Trans-Himalaya*, Vol. III, p. 45, London 1913.