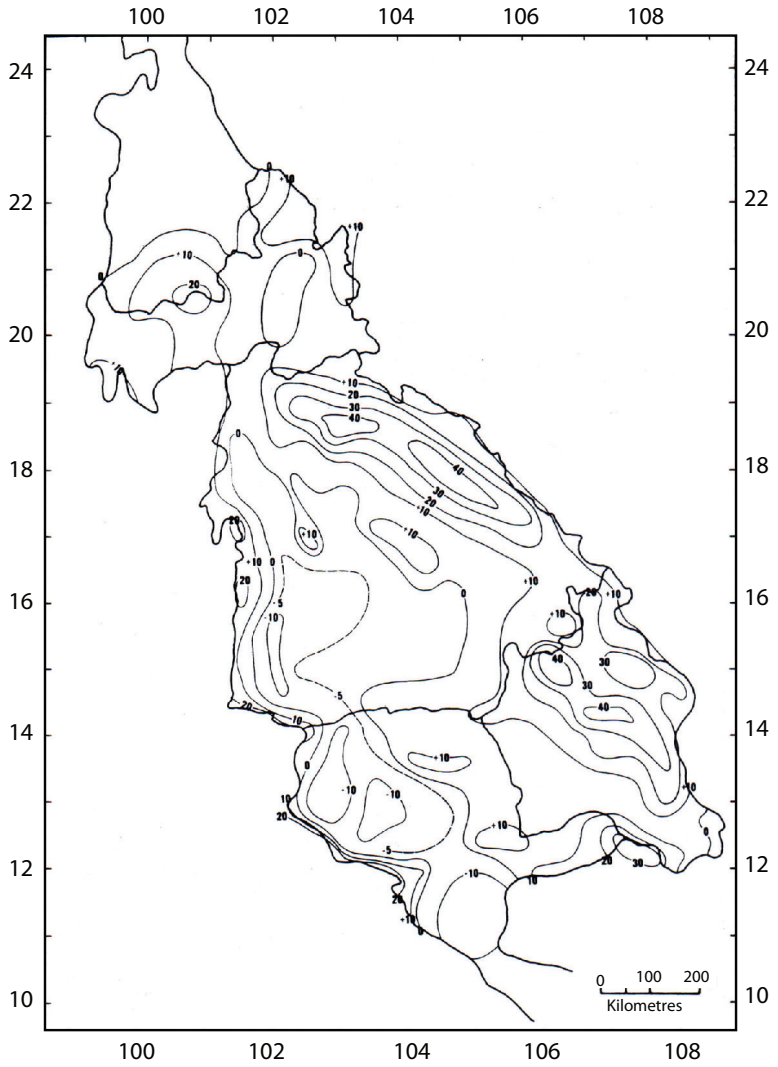

Figure 6.14. Adjustment of typhoon rainfall (United States Weather Bureau, 1970) for basin topography (percentage increase or decrease relative to low-elevation south-west monsoon rainfall over flat terrain)

shown in Figure 6.20. Three such storms are most important in developing the PMP estimates: 17–18 September 1880 over north-west Uttar Pradesh; 26–28 July 1927 over Gujarat; and 2–4 July 1941 over Dharampur, Gujarat. The locations of these storms are shown in Figure 6.20. The observed DAD values for these storms are shown in Figure 6.21.

6.2.3.2 Initial non-orographic PMP values

The rainfall during most significant storms occurred during a period of very little or no movement of the storm system. These storms occurred over a region of little topography. In fact, the storms of 1927 and 1941 were primarily over areas that were almost flat. This led to the development of non-orographic PMP values applicable to the flat coastal areas.

Moisture maximization of observed rainfall depths was used in the development of PMP for India. Dewpoint temperatures are less variable in India than in temperate climates, but there is some variation in available moisture from year to year due to changes in sea-surface temperature. The highest persisting 24-hour dew-point temperatures were obtained from approximately 25 representative stations and an interim map constructed using these values. Australian data showed extreme dewpoint temperatures are about 4˚C lower than extreme sea-surface temperatures. This result was