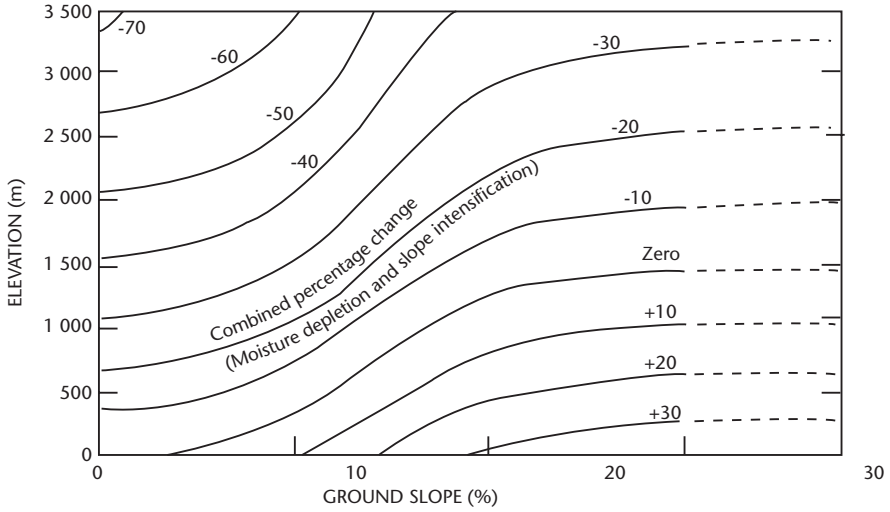

Figure 6.5. Adjustment of non-orographic PMP for elevation and slope, Hawaiian Islands (Schwarz, 1963)

and to areas up to 500 km^2 were derived mainly from Hawaiian storms. No seasonal variation curve was required since the greater efficiency and lower moisture of cool season storms balanced the lower efficiency and greater moisture of summer season storms.

PMP for a specific basin is obtained by planimetering the area within the basin on the 24-hour point PMP chart (Figure 5.1) to obtain the 24-hour basin-average PMP. The DAD relation from Figure 6.6 is then used to obtain PMP values for other durations.

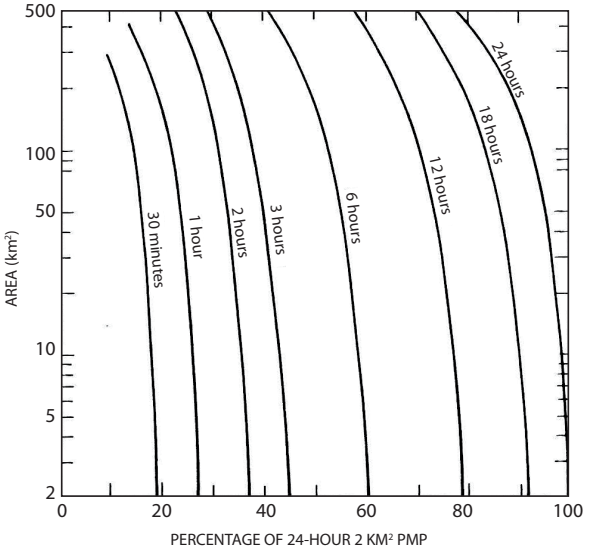

Figure 6.6. Variation of index PMP with basin size and duration, Hawaiian Islands (Schwarz, 1963)

6.2.2 PMP for the lower Mekong River basin in South-East Asia

Generalized estimates of PMP were made for drainages from 5 000 to 25 000 km^2 in the Mekong River basin south of the Chinese border at about 22° N latitude (Figure 6.7; United States Weather Bureau, 1970). This part of the basin is referred to generally as the Lower Mekong. The procedure used in making these estimates provides an example of how data from one part of the world may be used to estimate PMP for a region with inadequate data.

6.2.2.1 Mean seasonal precipitation map

A rough approximation of regional variation of rainfall potential may be gained from mean seasonal or annual precipitation maps. A map of mean rainfall was developed for the May–September season, that is, the south-west monsoon period, which produces most of the annual rainfall for much of the Lower Mekong. Rainfall observations provided the primary basis for the seasonal map. As usual, few observations were available for mountainous areas.

Where data are severely limited in mountainous regions, as was the case in the Mekong basin, determination of the detailed effects of topography on precipitation is a practically impossible task. In such situations, the best relations that can be developed are based on extensive smoothing of topography. Figure 6.8 shows the generalized topography of the Mekong drainage area and the locations of precipitation stations.