Table 6.2. PMP for 1- and 2-day durations for Chambal and Betwa watersheds

Chambal watershed			Betwa watershed		
Station	1 day (mm)	2 days (mm)	Station	1 day (mm)	2 days (mm)
Bidhuna	491	591	Kanpur	527	759
Bhind	558	625	Chandianallah	620	672
Ambah	483	570	Banda	555	725
Dholpur	459	590	Damoh	530	636
Morena	493	583	Borina	594	631
Jaura	599	623	Jabalpur	663	865
Bijaypur	809	1 063	Sager	913	967
Shahabad	646	881	Bhilsa	567	717
Shivpuri	639	833	Bhopal	730	913
Guna	978	1 064	Sehore	669	965
Lalitpur	752	886	Narsingarh	630	768
Tikamgarh	616	851	Lalsot	444	516
Gwalior	553	647	Sapotra	527	679
Pichhore	519	651	Tonk	571	629
Nowgans	643	751	Sawai	753	910
Chhatarpur	603	782	Sheopur	587	736
Panna	760	1 083	Jahazpur	533	710
Satna	590	907	Kotaah	566	619
Jhansi	643	738	Mangrol	662	816
Rai	864	995	Bhilwara	559	637
Alaunj	530	603	Nimbhahera	592	850
Derapur	655	807	Chechat	564	603
Hamirpur	648	774			

6.2.4.3.2　*Weather systems affecting the Chambal watershed*

The annual rainfall is greatly varied within the Chambal watershed, increasing from 700 mm in the north-west to 1400 mm in the south. The rainfall during the south-western monsoon accounts for 85 per cent of the annual rainfall, with July and August having the largest rainfalls. Monsoon depressions from the Bay of Bengal bring large-area, long-duration rainfalls in the watershed. Slowly moving troughs, which commonly turn in the Chambal watershed, bring abundant rainfalls. The India Meteorological Department (IMD) divides the Chambal watershed into a number of sub-basins as listed in Table 6.4.

The isohyetal map for the Chambal watershed was based on a 1 : 1 000 000 watershed map. There were about 95 rainfall stations outside and 177 inside the watershed.

6.2.4.3.3　*Storm analysis*

Several storms with large effects on the Chambal watershed and its sub-basins were selected from storms recorded in the India Daily Weather Report. Relevant rainfall data were collected from rainfall stations inside and outside the watershed.

The daily mean rainfall and the 1-, 2- and 3-day maximum rainfalls for the rainy period at each