Supplementary Table 1. Statistical characteristic of the monthly precipitation totals (in mm) in western part of Pamir-Alay averaged from 10 stations (Table 1) for the period 1930-1995

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Months | **I** | **II** | **III** | **IV** | **V** | **VI** | **VII** | **VIII** | **IX** | **X** | **XI** | **XII** |
| Average | **36.6** | **44.1** | **72.3** | **78.1** | **65.3** | **27.2** | **15.5** | **7.3** | **7.0** | **26.9** | **33.1** | **38.4** |
| Max | 75.8 | 92.9 | 158.0 | 203.4 | 128.7 | 61.0 | 77.0 | 32.6 | 29.8 | 103.0 | 76.0 | 92.3 |
| Percentiles |  |  |  |  |  |  |  |  |  |  |  |  |
| p=99% | 73.3 | 86.2 | 157.9 | 166.4 | 128.2 | 57.7 | 65.5 | 32.0 | 23.7 | 102.3 | 73.9 | 85.9 |
| p=95% | 65.9 | 80.4 | 141.0 | 135.6 | 114.8 | 53.1 | 50.7 | 27.0 | 20.1 | 81.6 | 69.1 | 73.2 |
| p=90% | 63.4 | 72.2 | 121.2 | 123.8 | 97.7 | 44.8 | 34.3 | 20.1 | 18.5 | 63.1 | 58.2 | 65.6 |
| p=75% | 52.6 | 56.0 | 88.9 | 95.0 | 81.1 | 35.9 | 18.7 | 8.3 | 9.2 | 33.8 | 51.0 | 49.9 |
| **p=50%** | **34.3** | **42.8** | **69.4** | **69.3** | **64.2** | **27.4** | **10.7** | **4.2** | **5.0** | **18.7** | **28.0** | **38.0** |
| p=25% | 22.6 | 27.8 | 46.5 | 55.2 | 44.9 | 16.0 | 5.0 | 1.5 | 1.6 | 10.3 | 19.3 | 24.6 |
| p=10% | 16.4 | 22.3 | 33.7 | 42.6 | 33.4 | 12.6 | 2.6 | 0.4 | 0.3 | 5.2 | 8.7 | 14.4 |
| p=5% | 10.3 | 17.7 | 26.6 | 33.0 | 25.9 | 6.6 | 1.5 | 0.2 | 0.0 | 3.2 | 5.2 | 12.4 |
| p=1% | 3.6 | 11.7 | 20.8 | 25.5 | 21.6 | 3.7 | 0.4 | 0.1 | 0.0 | 1.0 | 2.6 | 7.0 |
| Min | 1.9 | 8.1 | 17.8 | 24.5 | 18.4 | 2.7 | 0.3 | 0.0 | 0.0 | 0.4 | 1.9 | 1.0 |