A sequence of monsoon surges with a period of 10-30 days struck Pakistan and Northwest Indian during late July-early August 2010. The unusually heavy monsoon rainfall resulted in record-breaking flood, which affected 20 million people with a death total near 3000. Simultaneously, a long-lived blocking high, which well established in middle June and persist for nearly two months, occurred over Europe and Russia. The concurrent arrival of the cold air advection accompanying the deep trough in the east of the Europe blocking and the tropical monsoon surges in Pakistan indicates that the extreme flooding was associated with the interaction between the extratropical and tropical disturbances. This study demonstrates that the 10-30 day monsoon surges and the interaction between the monsoon depression and the Europe blocking were the key factors leading to the severe flooding in Pakistan. La Niña condition was already developed in July 2010. How the La Niña affected the large-scale circulation and enhanced the Pakistan flooding is also discussed.