

HAZARD CHARACTERISTICS OF NATURAL FLOOD: A CASE STUDY OF PADMA RIVER

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ABSTRACT

Flood in river Padma is one of the very complex hydrologic processes. The present study aimed at understanding flood hazard characteristics in the river Padma. To obtain this objective, secondary data about water level and discharge in river Ganges have been collected and analyzed. Flood frequency analysis was done. Very vulnerable flood with more than 70000cumec water discharge occurred five times during the year 1960 to 2010 and the flood frequency is >4.23 . Havoc flood with a water discharge of 50001-60000cumec occurs 22 times during the year 1960 to 2010 and the flood frequency is 1.13 to 2.01. The return period of the extreme flood event (with highest discharge) is 10 years. The return period of the flood with second highest discharge is 8 years. Analyzing the water level data it is clear that during the year 1960-2010 water level crossed the danger level for 21 times.

KEYWORDS: Padma River, Water Discharge, Flood Frequency and Danger Level