Analisis Sentensity Duration Frequency Kejadian Hujan di Kabupaten Banjarnegara

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Abstrak

Rainfall is the most important input component in the hydrologic process. Rainfall characteristic, which are intensity, duration, depth, and frequency. Intensity that is related to duration and frequency can be expressed by Intensity-Duration-Frequency (IDF) curve. IDF curve can be used to calculate floods design using by rational method. The objective of the research is to create IDF curve on flood prone area on Banjarnegara regency. In this study, daily rainfall depth was calculated by frequency analysis, which was started by determining the daily maximum mean rainfall, followed by calculated statistical parameter to choose the best distribution. Intensity could be calculated by Mononobe method. The result of this study indicated that the Log Normal distribution fit to most of data. The rainfall design for time periods 2, 5, 10, 15, 20, 25, 30, 40, 50 and 100 year are 116.3, 131.5, 140.2, 144.8, 147.8, 150.1, 151.9, 154.8, 156.9, dan 163.3 mm. The highly intensity of ranfall must be happen on short duration, but the lowly intensity of ranfall must be happen on long duration.