Flood Vulnerability of Critical Infrastructures - Review.

ABSTRACT

Flood event is one of the natural disasters that increasingly threaten the safety of the people in an area. Critical infrastructure albeit important, has been shown to be vulnerable to flooding and damages to critical infrastructure element may affect large areas over a longer time period. Critical infrastructures play an important role in functioning of industries and communities and also responding against flooding to reduce their impacts. Critical infrastructures such as hospital, school, road networks and other infrastructures are important during flood event to serve as emergency services. It was found that there is difference in understanding the concept of vulnerability with varying assessments and different view. This paper briefly reviews the concept of vulnerability and discusses on the approach used for flood vulnerability of critical infrastructure by past researchers to identify and fortify the vulnerable critical infrastructure ahead of time reducing the potential damage due to flood. This paper focuses the vulnerability of critical infrastructure during flood event and also describes several approaches with a discussion on the application of the approaches used and the relevance results.