

## **Rapid Restoration Method Using Permanent Large Sandbag for Rainfall Induced Embankment Failures**

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Conventional restoration method for rainfall-induced railway embankments failures using large sandbags involves considerable construction costs and prolonged construction duration. This study proposes a permanent structure employing large sandbags and evaluates its seismic performance and cumulative settlement behavior under train loads. Based on these evaluations, an optimized restoration method is proposed. The proposed method was found to reduce construction costs and duration by approximately 80% and 60%, respectively, compared with the conventional approach.