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Development of a simple and compact ground survey, and in-situ test method

Since most of ground disasters occur in the unsaturated region, soil tests and ground surveys on unsaturated soils have been performed in order to measure the geotechnical characteristics in unsaturated state. In addition, because it is necessary to evaluate quantitatively the ground behavior at the time of ground disasters, the following two themes are proposed: (1) an in-situ position test on a local scale with a simple and compact test equipment, (2) a ground scale survey on a field scale using a non-destructive measurement method from the ground surface. These would be contributed to evaluate of the safety of levees and slopes.



Development of monitoring method and numerical modeling method for safety assessment of levee failure caused by seepage flow



A monitoring method of the soil water content and pore water pressure by the infiltration behavior of the river levee has been proposed for the purpose of contributing to the design and construction work of the river levee by appropriately evaluating the safety of river levee. The construction method of a simulation model that can faithfully reproduce the measurement data by saturation and unsaturated infiltration analysis is developed.