

Soil Liquefaction



Figure 1: Soil liquefaction: Left: Magnitude 7.5 earthquake, June 1964, Niigata, Japan (Photo: Joseph Penzien.) Right: Magnitude 6.0 earthquake, February 2018, Hualien, Taiwan (Photo: CNA).

During earthquakes the shaking of the ground may cause a loss of strength or stiffness that results in the settlement of buildings, landslides, the failure of earth dams, or other hazards. The process leading to such loss of strength is called *soil liquefaction* (Housner 1985). It has been observed in almost all large earthquakes with much destructive effect and is particularly associated with a state change in saturated cohesionless soils.