

Category	Liquefaction and its induced hazards	Factors	Empirical methods
Liquefaction state	Liquefaction potential (LP)	Magnitude of earthquake, epicentral distance, duration of earthquake, peak ground acceleration (PGA), fine content, soil type, average particle size (D_{50}), SPT number (SPTN), vertical effective stress (σ'_v), groundwater table, depth of soil deposit, and thickness of soil layer	Hu et al. (2016)
	Liquefaction potential index (LPI)	LP, depth of soil deposit, and thickness of soil layer	Iwasaki et al. (1982), Maurer et al. (2015)
Liquefaction-induced hazards	Sand boils (SB)	LP, LPI, depth of soil deposit, thickness of soil layer, and groundwater table	Bardet and Kapuskar (1993)
	Ground cracks (GC)	LP, LPI, D_{50} , depth of soil deposit, thickness of soil layer, and ground slope (θ)	Youd (1984)
	Lateral spreading (LS)	LP, LPI, PGA, magnitude of earthquake, epicentral distance, depth of soil deposit, thickness of soil layer, D_{50} , and θ	Bartlett and Youd (1995), Wang and Rahman (1999), Goh and Zhang (2014)
	Settlement (S)	LP, LPI, PGA, depth of soil deposit, thickness of soil layer, soil type, LS, SB	Zhang et al. (2002), Cetin et al. (2009), Juang et al. (2013)
Comprehensive index	Severity of liquefaction-induced hazards (SLH)	LP, LPI, SB, GC, LS, S	–