

Table S1 The proportion of non-susceptible landslide areas in different geological environment sub-regions

Subarea Code	Subarea name	QNL_CHN model	QNL_ITA model	Fuzzy logic model
I ₁	Songliao Plain	0.86	0.99	0.99
I ₂	Sanjiang Xingkai Lake Plain	0.84	0.94	0.97
I ₃	Hulunbuir Plateau	0.76	0.97	1.00
I ₄	Da Hinggan-Lesser Khingan Mountains	0.25	0.62	0.73
I ₅	Changbai Mountain Range	0.22	0.56	0.54
I ₆	Liaodong Low Mountains and Hills	0.21	0.49	0.37
II ₁	Huanghuaihai Plain	0.93	0.98	0.98
II ₂	Yangtze River Delta	0.83	0.91	0.85
II ₃	Shandong Low Mountains and Hills	0.56	0.82	0.75
III ₁	The Middle and Lower Yangtze Valley Plain	0.75	0.94	0.92
III ₂	Hunan Jiangxi Guangxi Low Mountain and Hilly Areas	0.23	0.55	0.30
III ₃	Huaiyang Mountain Basin	0.38	0.71	0.56
III ₄	Southeast hilly and mountainous areas	0.25	0.55	0.24
III ₅	Hainan Plain Mountains	0.38	0.77	0.58
III ₆	Taiwan Plain Mountains	0.61	0.81	0.26
IV ₁	Fenwei Basin	0.58	0.78	0.66
IV ₂	Yinchuan Hetao Plain	0.75	0.89	0.83
IV ₃	Ordos Plateau	0.64	0.93	0.97
IV ₄	Longdong Shaanbei Loess Plateau	0.08	0.26	0.10
IV ₅	Shaanxi Loess Plateau	0.15	0.42	0.22
IV ₆	Yinshan Yanshan Mountain Range	0.34	0.68	0.57
IV ₇	Taihang Lvliang Mountains	0.20	0.50	0.27
V ₁	Sichuan Basin	0.24	0.58	0.56

V ₂	Qinling-Daba mountainous region	0.24	0.51	0.07
V ₃	长江三峡地质环境亚区	0.26	0.55	0.22
V ₄	Yunnan Central Sichuan Southwest Plateau Mountains	0.33	0.61	0.07
V ₅	West Hubei Yunnan Guizhou Zhongshan Plateau	0.14	0.40	0.08
V ₆	Yunnan West Central region	0.26	0.58	0.03
VI ₁	Tarim Hexi Corridor region	0.71	0.93	0.93
VI ₂	Zhunge'er Basin	0.65	0.93	0.89
VI ₃	Tianshan Mountains	0.54	0.85	0.60
VI ₄	Altai Mountains	0.30	0.68	0.25
VI ₅	The Inner Mongolian Plateau	0.66	0.93	0.92
VII ₁	Qaidam Basin	0.54	0.81	0.64
VII ₂	Northern Tibetan Plateau	0.41	0.72	0.44
VII ₃	Western Sichuan Eastern Tibet Plateau	0.45	0.67	0.08
VII ₄	Qilian Mountain Range	0.31	0.70	0.33
VII ₅	Kunlun Mountains	0.45	0.74	0.28
VII ₆	Himalayan Mountains	0.41	0.70	0.15