

Supplementary Table 1 Summary of experiment results.

Parameter	Vegetation density									
	NV		V-005		V-02		V-04		V-11	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Individual vegetation level										
Root mass ($\times 10^{-3}$ g/plant)	-	-	1.48	0.22	1.49	0.24	1.42	0.17	1.05	0.25
Total root length (mm/plant)	-	-	1837	326	1720	322	1613	280	1305	383
Number of roots (/plant)	-	-	36	8	35	7	32	6	27	6
Slope level										
Root mass (g)	-	-	0.07	0.01	0.29	0.01	0.54	0.01	1.12	0.15
Total root length ($\times 10^3$ mm)	-	-	90	3.7	337.1	20.9	619.6	12.6	1392.6	321.8
Number of roots ($\times 10^3$)	-	-	1.8	0.1	7	0.4	12.5	0.3	29.4	5
Root Diameter (mm)	-	-	0.25	0.17	0.28	0.15	0.27	0.16	0.23	0.15
Root reinforcement (N/m²)	-	-	0.05	0.07	0.16	0.15	0.37	0.08	2.5	1.3
Time for landslide (min)	8.2	1.1	9.1	0.8	11.6	3.5	14.1	1.1	14.9	1.8
Landslide area ($\times 10^3$ cm²)	4.5	1.3	4.2	0.8	4.2	0.6	3.2	0.5	4.5	2.5
Time for saturated area formation (min)	7.3	1.2	7.3	0.6	9.4	2.9	11.2	1.9	8.2	0.2
Saturated area volume ($\times 10^3$ cm³)	3.03	0.19	3.18	0.33	4.07	0.67	5.92	0.54	13.16	3.54
Time for deformation (s)	53.3	57.7	93.3	61.1	100	72.1	113.3	11.5	146.7	23.1
Maximum deformation (mm)	32.6	1.3	36.6	8.1	45.6	9.5	60.3	10.7	99	9.6
Maximum rate of deformation (mm/s)	0.6	0.5	4.5	2.9	5.2	3.1	23.2	8.4	9.3	7.5
Maximum water storage ratio (%)	51.6	4.3	52.9	2.4	63.3	0.8	63.2	12.9	71.2	5.2
Average water content (m³/m³)	0.13	0.011	0.14	0.02	0.16	0.013	0.18	0.02	0.2	0.003