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Article

Identifying the Minimum Amount of Data Collection for Reasonable Flood Peaks Prediction of Ungauged Mountainous Catchments in South Korea

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Supplementary Materials

Table S1. Catchments and flood peaks characteristics of 40 study sites used in this study.

Site name	Catchment area (ha)	Mean slope (°)	Stream slope (°)	Stream length (m)	Mean soil depth (cm)	Hypsometric	Forest stand	Number of flood peaks	Data collection year
C1	4.5	20.6	16.1	529	35.0	0.48	Mix.	**130**	**12**
C2	12.7	22.3	17.3	455	63.6	0.43	Con.	**273**	**39**
C3	23.8	20.0	18.1	672	66.2	0.45	Broad.	**340**	**38**
C4	18.5	25.0	15.6	798	62.2	0.47	Broad.	26	8
C5	21.7	23.5	17.1	814	40.3	0.46	Broad.	**109**	**14**
C6	40.7	29.9	19.9	1213	30.6	0.46	Broad.	**141**	**13**
C7	34.4	29.3	17.1	856	53.0	0.59	Con.	8	8
C8	17.4	28.8	15.1	737	52.3	0.54	Con.	**106**	**15**
C9	15.0	27.0	17.9	748	56.1	0.48	Mix.	42	11
C10	34.7	21.1	17.4	1249	44.9	0.53	Broad.	26	10
C11	44.8	24.1	16.1	887	55.7	0.41	Broad.	**145**	**10**
C12	59.0	32.0	24.4	1112	58.9	0.58	Broad.	112	9
C13	46.2	29.8	11.2	1076	56.1	0.48	Mix.	32	9
C14	968.9	27.2	8.3	5335	72.1	0.53	Mix.	14	7
C15	40.6	27.0	19.9	1127	74.9	0.51	Broad.	69	8
C16	5.6	23.6	25.1	425	66.5	0.54	Broad.	44	8
C17	5.4	31.7	25.7	459	31.5	0.45	Con.	19	8

C18	12.1	31.2	23.5	586	27.4	0.57	Mix.	4	1
C19	47.0	20.4	13.2	1587	65.2	0.50	Con.	82	4
C20	20.4	22.3	15.5	811	62.6	0.48	Mix.	68	4
C21	19.1	27.3	19.6	735	83.8	0.54	Broad.	45	4
C22	13.2	31.2	22.6	789	76.7	0.44	Broad.	102	4
C23	121.0	33.3	17.6	1405	38.2	0.51	Mix.	21	3
C24	219.2	23.4	13.7	2301	56.4	0.60	Mix.	25	5
C25	867.1	28.1	6.7	5152	67.4	0.35	Mix.	44	5
C26	281.4	27.6	9.9	2787	60.9	0.45	Mix.	56	7
C27	106.8	30.4	16.4	1676	52.2	0.40	Broad.	33	2
C28	191.8	30.4	10.5	2676	71.8	0.41	Mix.	27	2
C29	56.5	34.9	22.5	1183	63.6	0.51	Broad.	74	2
C30	198.4	27.3	10.8	2046	37.6	0.52	Mix.	14	2
C31	199.2	29.6	10.3	3161	58.0	0.52	Mix.	32	2
C32	105.6	32.8	13.1	1520	55.1	0.44	Mix.	13	1
C33	55.2	27.2	17.8	1179	69.9	0.46	Mix.	23	1
C34	14.9	27.0	18.9	723	38.2	0.49	Con.	24	3
C35	14.7	26.4	18.5	656	36.9	0.51	Con.	15	7
C36	208.9	27.7	13.0	2498	49.7	0.33	Mix.	2	1
C37	103.0	28.9	11.3	2208	64.5	0.34	Mix.	1	1
C38	101.8	31.2	16.8	1581	64.9	0.54	Broad.	4	1
C39	2.0	21.9	15.4	320	38.8	0.57	Broad.	99	10
C40	36.8	29.6	13.8	769	44.7	0.43	Broad.	63	5

***Note*:** Mix is mixed forest, Con is coniferous forest, and Broad is broadleaf forest. Seven catchments were selected to determine the suitable amount of data collection. To assume that sufficient flood data was collected from ungauged catchments, those catchments that had more than 100 flood events recorded over a period of 10 years, or more were selected. These seven catchments were indicated in bold: c1, c2, c3, c5, c6, c8, and c11.