

Figure S1. L-moment ratio diagram (LMRD) of 22 homogeneous regions in Taiwan (the gray dots are site sample L-moment ratios, the red points are the regional average L-moment ratios, and colored curves represent theoretical L-moment ratio curves of 5 candidate distributions)

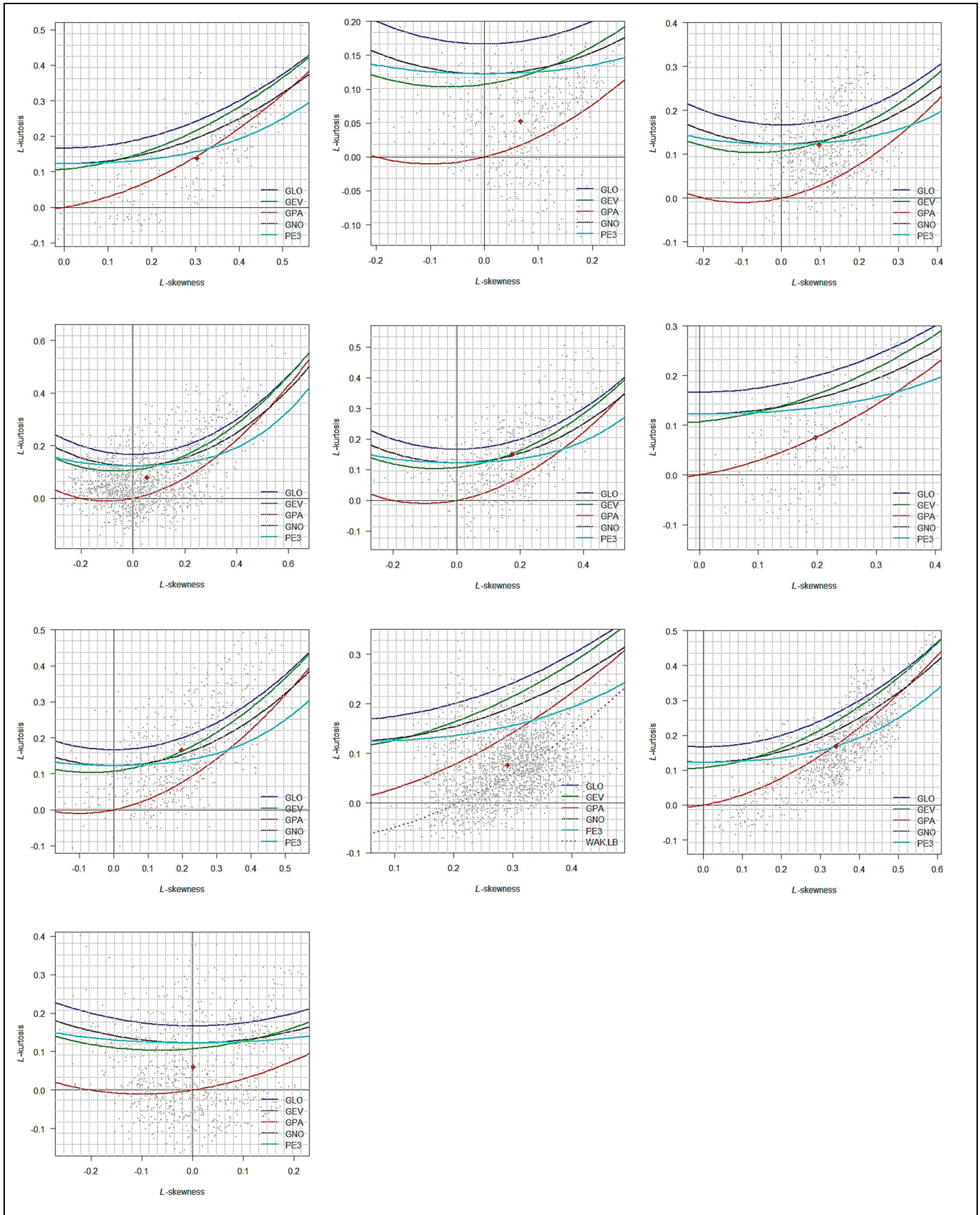


Figure S1. *Cont.*

Table S1. Quantile estimates with different return periods for each homogeneous sub-region

Region/Sub-region	Return Period					
	2	5	10	20	50	100
<i>North</i>						
1	0.86	1.39	1.78	2.18	2.75	3.21
2	0.91	1.34	1.59	1.80	2.01	2.13
3	0.94	1.25	1.46	1.65	1.91	2.11
4	0.88	1.29	1.61	1.93	2.39	2.77
5	0.91	1.46	1.74	1.94	2.12	2.21
6	0.92	1.31	1.58	1.85	2.21	2.50
<i>West</i>						
7	0.80	1.38	1.83	2.28	2.89	3.35
8	0.91	1.38	1.67	1.92	2.22	2.41
9	0.89	1.29	1.60	1.95	2.49	3.00
10	0.88	1.35	1.66	1.97	2.36	2.65
<i>Center</i>						
11	0.82	1.43	1.86	2.26	2.75	3.09
12	0.94	1.38	1.62	1.82	2.02	2.13
13	0.99	1.38	1.55	1.65	1.73	1.77
14	0.98	1.36	1.54	1.67	1.81	1.89
15	0.98	1.19	1.37	1.55	1.82	2.03
<i>East</i>						
16	0.96	1.40	1.62	1.78	1.91	1.98
17	0.92	1.37	1.64	1.87	2.13	2.29
<i>South</i>						
18	0.97	1.27	1.44	1.60	1.78	1.90
19	0.97	1.23	1.38	1.52	1.68	1.79
20	0.99	1.25	1.38	1.50	1.63	1.71
21	0.90	1.39	1.67	1.89	2.12	2.25
22	0.80	1.45	1.92	2.37	2.93	3.33

Table S2. RMSE and 90 % error bounds of 22 homogeneous sub-regions with different return periods.

Reg	2-year			5-year			10-year			20-year			50-year			100-year		
	RMSE	Error Bounds		RMSE	Error Bounds		RMSE	Error Bounds		RMSE	Error Bounds		RMSE	Error Bounds		RMSE	Error Bounds	
		Lower	Upper		Lower	Upper		Lower	Upper		Lower	Upper		Lower	Upper			
North																		
1	.013	.847	.865	.011	1.377	1.393	.006	1.774	1.792	.027	2.182	2.224	.075	2.750	2.864	.126	3.214	3.408
2	.004	.899	.910	.006	1.339	1.353	.011	1.591	1.617	.014	1.789	1.830	.018	1.981	2.038	.026	2.083	2.161
3	.005	.932	.941	.004	1.243	1.250	.005	1.451	1.464	.013	1.654	1.678	.030	1.914	1.967	.047	2.110	2.187
4	.011	.865	.879	.006	1.286	1.295	.008	1.608	1.622	.028	1.934	1.975	.064	2.394	2.485	.099	2.768	2.909
5	.003	.906	.914	.006	1.461	1.473	.007	1.736	1.755	.008	1.926	1.949	.021	2.086	2.121	.036	2.157	2.213
6	.007	.904	.915	.006	1.301	1.309	.005	1.578	1.591	.017	1.851	1.882	.042	2.214	2.286	.067	2.497	2.608
West																		
7	.011	.785	.801	.009	1.369	1.383	.007	1.830	1.844	.035	2.282	2.332	.090	2.887	3.018	.146	3.351	3.566
8	.005	.901	.910	.004	1.374	1.386	.008	1.664	1.684	.011	1.916	1.944	.014	2.203	2.241	.021	2.384	2.444
9	.017	.871	.890	.012	1.275	1.289	.005	1.596	1.608	.032	1.945	1.989	.091	2.493	2.614	.158	2.995	3.207
10	.008	.871	.882	.002	1.342	1.347	.009	1.665	1.680	.020	1.971	2.002	.036	2.364	2.417	.049	2.654	2.726
Center																		
11	.009	.808	.820	.005	1.425	1.439	.017	1.858	1.883	.029	2.257	2.305	.043	2.746	2.828	.052	3.088	3.196
12	.004	.934	.943	.004	1.373	1.384	.005	1.618	1.636	.006	1.810	1.829	.013	1.993	2.025	.020	2.094	2.138
13	.004	.986	.995	.004	1.379	1.390	.005	1.543	1.559	.005	1.643	1.660	.011	1.710	1.737	.017	1.734	1.771
14	.005	.967	.982	.005	1.352	1.367	.009	1.520	1.553	.012	1.647	1.691	.014	1.783	1.823	.021	1.855	1.916
15	.006	.967	.977	.006	1.183	1.195	.005	1.357	1.373	.012	1.549	1.571	.035	1.816	1.870	.061	2.035	2.134
East																		
16	.003	.956	.965	.003	1.398	1.407	.004	1.612	1.625	.009	1.759	1.775	.018	1.885	1.913	.024	1.945	1.983
17	.006	.909	.923	.005	1.365	1.380	.010	1.631	1.660	.013	1.859	1.895	.016	2.103	2.155	.023	2.254	2.329
South																		
18	.002	.964	.967	.002	1.262	1.267	.002	1.439	1.446	.004	1.595	1.606	.009	1.777	1.795	.013	1.900	1.926
19	.003	.967	.972	.002	1.226	1.232	.003	1.378	1.389	.006	1.509	1.529	.010	1.670	1.699	.014	1.782	1.820
20	.003	.987	.995	.003	1.244	1.254	.005	1.372	1.390	.006	1.485	1.505	.008	1.611	1.639	.013	1.693	1.736
21	.004	.891	.904	.003	1.384	1.395	.006	1.662	1.683	.014	1.874	1.920	.025	2.083	2.167	.034	2.198	2.313
22	.010	.783	.801	.009	1.438	1.459	.009	1.915	1.940	.032	2.362	2.428	.076	2.919	3.068	.118	3.318	3.545