

Supplemental Table S4: Factor scores loading/eigen vector

PCs	F1	F2	F3	F4	F5
Songwe-Mbozi_Mbimba	-0.666	0.762	-2.420	-0.105	-0.102
Songwe-Mbozi_Ivwanga	-1.809	0.412	-1.743	0.054	-0.079
Songwe-Mbozi_Nambala	-2.055	-0.272	-1.842	0.218	0.221
Songwe-Momba_Impumpila	-2.577	-0.768	-0.353	-0.070	-0.623
Songwe-Momba_Isanga	-1.711	-0.753	0.111	0.361	0.076
Songwe-Momba_Kakozi	-2.165	-0.591	-0.132	0.467	-0.079
Songwe-Ileje_Itumba	-1.303	-0.157	0.477	-0.108	-0.168
Songwe-Ileje_Namangoni	1.647	-0.038	0.505	-1.216	-1.326
Songwe-Ileje_Isongole	1.383	2.999	2.387	-0.851	-0.779
Rukwa-Nkasi_Milundikwa	-0.544	0.658	-1.358	-0.457	0.055
Rukwa-Nkasi_Kasu	-0.396	0.970	0.513	0.326	-0.212
Rukwa-Nkasi_Kantawa	-1.673	-0.727	0.227	0.393	0.161
Rukwa-Sumbawanga TC_Chanji	-1.512	-0.916	0.874	-0.369	0.690
Rukwa-Sumbawanga TC_Kizitwe	-1.012	-0.966	0.728	-0.553	1.001
Rukwa-Sumbawanga TC_Ntendo	-1.266	-0.183	-0.006	0.129	-0.087
Rukwa-Sumbawanga Rural_Ndelema	-1.061	-0.613	0.689	-0.533	1.134
Rukwa-Sumbawanga Rural_Laela	-0.716	-1.034	2.034	0.666	0.213
Rukwa-Sumbawanga Rural_Lusaka	-1.208	-0.592	0.434	-0.274	0.617
Mbeya-Mbeya rural_Mvunwa	0.334	-0.614	0.768	1.827	1.302
Mbeya-Mbeya rural_Njelenje	-1.792	-0.779	-0.155	-0.166	-1.899
Mbeya-Mbeya rural_Mshewe	0.135	-0.317	0.009	0.884	0.784
Mbeya-Chunya_Chokaa	0.069	-1.057	2.758	0.552	-1.451
Mbeya-Chunya_Kibaoni	-0.416	-1.173	1.734	-0.210	0.176
Mbeya-Chunya_Mapogoro	-0.231	-0.976	0.800	-0.057	-0.127
Mbeya-Mbeya CC_Mponja	-0.057	0.151	-0.962	0.195	1.845
Mbeya-Mbeya CC_TARI Uyole	0.730	0.318	-1.042	0.643	-0.604
Mbeya-Mbeya CC_Utukuyu TRD	0.480	0.260	-1.598	0.558	0.540
Iringa-Iringa DC_Mgama	-1.955	-1.172	0.751	0.525	-0.031
Iringa-Iringa DC_Ibumila	-1.129	-0.490	-0.138	-0.658	0.906
Iringa-Iringa DC_Lyamungwe	-1.579	-0.720	-0.314	-1.071	-0.256
Iringa-Kilolo_Mkoga	-2.830	-1.066	1.065	-0.629	-1.995
Iringa-Kilolo_Mfyome	-2.218	-1.122	1.182	-0.995	0.269
Iringa-Kilolo_Mtitu	-2.076	-0.079	-0.449	-0.936	0.860
Iringa-Mufindi_Ikovano	0.516	-1.004	2.741	0.205	0.178
Iringa-Mufindi_Igomaa	-0.140	-0.857	2.682	0.184	0.993
Iringa-Mufindi_Satamumo-Ikweha	-0.489	-0.473	0.854	-0.419	0.059
Njombe-Wanging'ombe_Mngate	-1.023	-0.504	-0.071	-0.493	1.447
Njombe-Wanging'ombe_Mlevela	-1.776	-0.036	-2.037	-0.059	-0.328
Njombe-Wanging'ombe_Ndandu	-1.702	-0.460	-0.212	-0.031	0.188
Njombe-Njombe DC_Tagamenda	-2.449	-0.460	-1.492	0.026	-0.330
Njombe-Njombe DC_Itipingi	-1.688	-0.513	-0.706	-0.732	-2.434
Njombe-Njombe DC_Kichiwa	-2.224	0.135	-1.248	-0.251	-0.054
Njombe-Ludewa_Njelela	0.262	0.910	-4.346	-0.545	1.157
Njombe-Ludewa_Mtumamo	-0.814	-0.014	-0.755	-1.076	0.759

Njombe-Ludewa_Amani	-0.157	-0.261	-0.351	-0.524	0.460
Ruvuma-Madaba_Lituta	-2.267	2.184	-0.407	0.363	-0.885
Ruvuma-Madaba_Kipingo	-1.045	0.007	-0.356	0.668	0.806
Ruvuma-Madaba_Ndelenyuma	-1.080	3.890	-0.023	1.617	-0.219
Ruvuma-Songea DC_Mlete	-1.712	-0.868	-0.135	1.517	-3.342
Ruvuma-Songea DC_Mang'ua	-1.718	-0.792	0.320	-0.512	0.134
Ruvuma-Songea DC_Seed farm	-3.836	11.431	2.398	-0.676	0.026
Ruvuma-Songea DC_Nambehe	-2.218	0.108	-0.211	-0.611	0.422
Ruvuma-Namtumbo_Msindo	-1.991	-0.722	0.259	-0.559	1.024
Ruvuma-Namtumbo_Ruvuma	-1.963	-0.493	-0.101	-0.410	0.764
Morogoro-Kilosa_TARI Ilonga	-0.794	-0.144	0.495	0.462	-0.306
Morogoro-Kilosa_Msowero	-1.560	-0.559	1.037	0.166	-1.889
Morogoro-Kilosa_Mvumi	0.508	-0.298	1.360	1.557	2.175
Morogoro-Mvomero_Kipera	1.968	-0.511	0.340	-2.109	-1.534
Morogoro-Mvomero_Chanagalawe	0.781	-0.724	0.789	-0.231	0.299
Morogoro-Mvomero_Kinyenze	1.111	-0.748	1.734	-0.008	-0.009
Morogoro-Rural_Muhungamkola	1.266	-0.431	0.222	-0.126	1.102
Morogoro-Rural_Lukonde Darajani	0.122	-0.703	0.306	-0.312	1.092
Morogoro-Rural_Mahundumula Maleta	0.704	0.508	-3.873	-0.299	0.865
Arusha-Meru_Seliani Kisongo	6.696	0.408	0.536	-0.632	0.602
Arusha-Meru_Kikatiti	5.454	0.473	0.203	-1.274	0.262
Arusha-Meru_Nambala (NM-AIST)	5.109	0.482	-0.103	-0.648	0.561
Arusha-Karatu_Marera	1.264	-0.905	1.669	-0.086	-0.468
Arusha-Karatu_Kilimatembo	0.119	-0.175	-0.614	-0.169	0.231
Arusha-Karatu_Rhotia Juu	4.553	0.857	-0.824	4.355	1.747
Arusha-Monduli_Ngarashi	-0.618	-0.322	-0.757	0.175	0.586
Arusha-Monduli_Sepeko	3.282	0.073	0.513	-0.193	0.618
Arusha-Monduli_Rasharasha/Monduli Juu	3.922	0.288	0.155	-0.658	-0.640
Kilimanjaro-Siha_Njaru	4.900	0.635	-0.025	0.311	1.019
Kilimanjaro-Siha_Fuka-Sanya Juu	1.875	0.342	-0.018	0.306	2.631
Kilimanjaro-Siha_Koboko Kusini	1.575	0.007	-0.371	0.265	-0.051
Kilimanjaro-Hai_Lambo mferejini	2.838	-0.166	0.883	3.659	-3.740
Kilimanjaro-Hai_Kia	6.372	0.425	-0.898	-5.976	-2.455
Kilimanjaro-Hai_Narumu - Machame	-0.571	-0.390	-1.203	-0.597	0.315
Kilimanjaro-Moshi Rural_Boro - Masoka Kibosho	0.759	0.364	-2.951	2.178	-3.670
Kilimanjaro-Moshi Rural Longuo A	4.733	0.383	-0.377	1.353	0.176
Kilimanjaro-Moshi Rural_Kidachini	4.325	0.271	-0.570	2.310	-1.378