

Design and characterisation of spatial units for monitoring global impacts of environmental factors on major crops and food security.

René Gommès, Bingfang Wu, Zhongyuan Li, Hongwei Zeng

Supporting information

Environmental and agronomic characterization of MRUs

Table S2: Spatially averaged values for environmental and seasonality/time variability variables for each MRU. E1 Area, E2 elevation, E3 Rain, E4 Tavg, E5 Rady, E6 NDVIavg, E7 Avm, E8 Npp, S1 rn0510%, S2 T02-08, S3 bio04, S4 bio07, S5 dvi2-8, S6 NDVIstDev and VSI, the variability/seasonality indicators which varies from 0 to 1 (least variable to most variable MRU). Refer to table 1 for additional details of variable definitions.

MRU	E1	E2	E3	E4	E5	E6	E7	E8	S1	S2	S3	S4	S5	S6	VSI
M01	6401	809	1434	23.3	156	0.66	110	163	40	1.7	0.35	16.8	0.07	0.128	0.15
M02	693	1820	1070	19.1	193	0.51	89	142	69	1.3	0.36	18.6	-0.16	0.123	0.25
M03	1927	280	1506	26.4	157	0.55	91	169	84	2.5	0.45	17.5	-0.14	0.143	0.33
M04	2023	680	440	25.3	200	0.32	88	90	42	0.3	0.45	17.7	0.07	0.083	0.07
M05	464	592	1582	22.6	173	0.58	108	185	12	4.7	0.67	17.6	0.13	0.111	0.35
M06	131	357	690	23.8	183	0.47	101	126	11	6.1	0.88	21.7	0.24	0.115	0.44
M07	817	723	349	16.6	176	0.25	89	57	29	-16.1	2.06	29.8	0.11	0.058	0.38
M08	4813	417	463	27.7	203	0.27	85	73	97	-2.2	0.91	25.1	-0.22	0.104	0.42
M09	4578	880	596	20.6	188	0.43	92	91	14	6.9	1.13	24.5	0.21	0.098	0.4
M10	95	529	474	15.9	182	0.44	77	70	58	9.3	1.23	23.4	-0.13	0.075	0.22
M11	4465	494	422	-5.8	89	0.39	118	37	68	-32.6	4.81	46.6	-0.52	0.224	0.85
M12	2094	687	531	7.2	136	0.38	109	84	71	-26.4	3.72	44.1	-0.41	0.162	0.76
M13	2249	292	999	6.8	129	0.58	103	109	57	-25.5	3.45	39.6	-0.54	0.203	0.69
M14	2083	288	1070	17.1	157	0.58	106	141	58	-17.9	2.42	32.9	-0.21	0.083	0.44
M15	2097	424	632	-0.7	112	0.5	108	59	68	-31.2	4.51	47.4	-0.54	0.205	0.84
M16	479	740	981	11.2	151	0.58	90	101	20	-13.5	1.88	28.7	-0.04	0.093	0.4
M17	668	1738	782	17.7	173	0.51	81	113	86	-6.8	1.11	26.2	-0.2	0.104	0.42
M18	2070	1300	293	14	168	0.26	85	52	58	-17	2.41	36	-0.07	0.051	0.35
M19	2091	342	1890	25.3	170	0.67	113	183	75	-1.2	0.35	14.3	-0.09	0.106	0.16
M20	227	213	1410	24.6	177	0.69	92	156	72	-4.4	0.52	14.9	-0.07	0.068	0.13
M21	1835	2623	805	13.2	165	0.38	85	96	26	3.8	0.61	19.4	0.02	0.086	0.16
M22	825	416	754	24.5	165	0.55	86	122	22	2.1	0.38	15	0.13	0.132	0.25
M23	3675	437	1368	23.8	155	0.66	104	174	22	2.3	0.51	17.5	0.16	0.111	0.27
M24	6381	205	2318	25.8	137	0.77	115	218	39	0	0.17	13.2	-0.08	0.147	0.13
M25	459	348	668	20.8	179	0.58	108	119	18	9.2	1.46	26.6	0.25	0.109	0.45
M26	1844	218	1148	18.1	165	0.64	104	158	40	9.9	1.43	24.6	0.15	0.082	0.27
M27	850	746	959	7.9	147	0.42	99	96	61	9.5	1.36	21.2	0.12	0.102	0.27
M28	863	935	231	11.4	164	0.25	101	50	46	11.2	1.66	26.5	0	0.056	0.16
M29	972	1226	584	9.8	158	0.37	84	85	43	-22.6	2.9	35.1	-0.21	0.128	0.56
M30	618	2614	515	5.6	169	0.23	67	65	36	-23.4	3.16	37.5	-0.15	0.084	0.51
M31	4825	559	206	12.9	170	0.17	80	38	32	-26.2	3.56	41.8	-0.03	0.066	0.45
M32	2190	1740	113	5.9	156	0.1	71	20	83	-28.1	4.06	45.9	-0.09	0.068	0.58
M33	34	190	1495	24.1	145	0.67	65	187	83	-7.9	1.14	17.2	-0.17	0.079	0.29
M34	432	91	655	13.4	154	0.47	154	103	85	-25.3	3.43	37.7	-0.46	0.141	0.76
M35	810	976	366	3.5	156	0.28	102	59	91	-32	4.61	48.6	-0.38	0.133	0.89
M36	408	1355	523	9	151	0.37	97	79	85	-23	3.27	38.4	-0.39	0.115	0.73
M37	945	259	1421	17	139	0.58	114	172	65	-21	2.67	30.5	-0.31	0.115	0.56
M38	921	385	577	1.7	134	0.43	115	70	89	-35.6	5.14	52.4	-0.67	0.235	1
M39	2263	4391	384	-1.3	155	0.21	65	49	89	-18.6	2.71	35.1	-0.19	0.09	0.62
M40	450	682	1517	20.2	141	0.61	82	183	79	-12	1.62	22.5	-0.15	0.115	0.44
M41	1017	1234	1090	14.6	133	0.56	83	141	81	-16.9	2.24	27.5	-0.33	0.128	0.62

MRU	E1	E2	E3	E4	E5	E6	E7	E8	S1	S2	S3	S4	S5	S6	VSI
M42	36	785	2523	19.1	145	0.68	101	199	77	-9.4	1.19	17	-0.11	0.077	0.24
M43	701	381	993	4.3	128	0.53	104	91	76	-30.5	4.12	42.6	-0.6	0.219	0.84
M44	1947	992	1426	20.3	172	0.55	96	161	87	-10.1	1.66	26.7	-0.05	0.12	0.45
M45	1579	347	1264	26.3	194	0.48	104	158	88	-2.8	1.02	22.7	-0.06	0.105	0.31
M46	231	331	1860	13.4	134	0.65	112	161	67	-22.2	2.68	30.7	-0.25	0.091	0.53
M47	664	1491	118	2.8	165	0.11	87	24	89	-31	4.56	48.8	-0.09	0.046	0.65
M48	735	215	459	25.8	210	0.3	93	80	90	-11.1	1.97	32.9	-0.02	0.076	0.42
M49	2879	381	2826	25	154	0.75	119	230	44	0.2	0.15	10.1	-0.01	0.109	0
M50	1392	273	1858	25.7	161	0.64	104	199	86	-2.3	0.62	18	-0.04	0.108	0.25
M51	5316	416	348	-10.9	83	0.39	117	21	71	-41	6.3	55.9	-0.64	0.26	0.93
M52	2763	1032	410	-5.4	117	0.35	87	36	86	-38.4	5.82	56.5	-0.54	0.214	0.96
M53	1707	211	939	25.7	197	0.48	91	126	10	6.1	1.02	22.1	0.09	0.086	0.33
M54	1699	276	640	17	179	0.5	96	90	47	12.3	1.66	26.8	-0.11	0.098	0.31
M55	321	249	474	17.2	178	0.45	93	73	72	11.9	1.49	25.1	-0.3	0.127	0.49
M56	266	498	1675	10.2	130	0.7	94	129	53	9.4	1.25	19.7	0.04	0.088	0.15
M57	6494	266	490	-5.3	78	0.46	139	41	66	-32.1	4.61	45	-0.56	0.238	0.85
M58	3084	160	583	5.1	109	0.51	114	87	60	-26.1	3.58	37.1	-0.48	0.218	0.71
M59	1209	696	635	13.1	162	0.49	82	97	34	-16.5	2.13	27.9	0	0.082	0.31
M60	3092	335	779	9.1	119	0.58	105	107	55	-16.8	2.24	26.4	-0.26	0.139	0.47
M61	1590	1523	737	2.7	118	0.44	83	70	50	-19	2.74	34.9	-0.34	0.156	0.56
M62	2551	427	390	2.3	119	0.39	108	60	65	-32.2	4.55	46.4	-0.41	0.189	0.8
M63	4148	304	261	22.2	206	0.26	85	50	35	13.1	1.84	30.2	-0.01	0.043	0.25
M64	11682	512	51	24.1	215	0.1	59	14	45	-14.8	2.06	32.3	0.01	0.021	0.22
M65	4826	962	458	-15.7	75	0.23	88	16	64	-30.6	4.48	38.8	-0.35	0.227	0.75