Annex A. Agroclimatic indicators and BIOMSS

We also stress that the reference period, referred to as "average" in this bulletin covers the 15- year period from 2007 to 2021. Although departures from the 2007-2021 are not anomalies (which, strictly, refer to a "normal period" of 30 years), we nevertheless use that terminology. The specific reason why CropWatch refers to the most recent 15 years is our focus on agriculture, as already mentioned in the previous paragraph. 15 years is deemed an acceptable compromise between climatological significance and agricultural significance: agriculture responds much faster to persistent climate variability than 30 years, which is a full generation. For "biological" (agronomic) indicators used in subsequent chapters we adopt an even shorter reference period of 5 years (i.e. 2017-2021) but the BIOMSS indicator is nevertheless compared against the longer 15YA (fifteen- year average). This makes provision for the fast response of markets to changes in supply but also to the fact that in spite of the long warming trend, some recent years (e.g. 2008 or 2010-13) were below the trend.

Correlations between variables (RAIN, TEMP, RADPAR and BIOMSS) at MRU scale derive directly from climatology. For instance, the positive correlation between rainfall and temperature results from high rainfall in equatorial, i.e. in warm areas.

Considering the size of the areas covered in this section, even small departures may have dramatic effects on vegetation and agriculture due to the within-zone spatial variability of weather. It is important to note that we have adopted an improved calculation procedure of the biomass production potential in the bulletin based on previous evaluation. The improved approach includes sunshine (RADPAR), TEMP and RAIN.

Table A.1 January 2022 – April 2022 agroclimatic indicators and biomass by global Monitoring and Reporting Unit (MRU)

65 Global MRUs		RAIN Current (mm)	RAIN 15YA dep. (%)	TEMP Current (°C)	TEMP 15YA dep. (°C)	RADPAR Current(MJ/m²)	RADPAR 15YA dep. (%)	BIOMSS Current (gDM/m²)	BIOMSS 15YA dep. (%)
C01	Equatorial central Africa	661	-14	23.3	-0.1	1225	2	1148	-4
C02	East African highlands	139	-49	20.2	0.4	1382	3	543	-18
C03	Gulf of Guinea	122	-13	27.1	-0.1	1326	1	617	-5
C04	Horn of Africa	315	-35	22.1	0.5	1340	5	799	-13
C05	Madagascar (main)	1317	11	22.4	0.1	1147	-2	1430	2
C06	Southwest Madagascar	384	-30	25.6	0.5	1256	1	1008	-7
C07	North Africa-Mediterranean	172	-19	10.3	-0.4	956	0	452	-7
C08	Sahel	29	30	27.1	-0.5	1369	0	360	-9
C09	Southern Africa	557	-7	22.1	0.2	1222	0	969	-6
C10	Western Cape (South Africa)	86	-29	19.3	0.2	1293	2	542	-8
C11	British Columbia to Colorado	324	-11	-2.8	-0.3	715	1	289	-6
C12	Northern Great Plains	231	0	-0.6	-0.9	729	0	331	-12
C13	Corn Belt	456	8	-0.3	-0.6	649	-1	373	-6

C14	Cotton Belt to Mexican Nordeste	372	-6	11.4	0.0	909	5	661	-4
C15	Sub-boreal America	271	26	-8.6	-0.7	489	-8	181	-12
C16	West Coast (North America)	326	-34	7.3	0.0	821	6	406	-24
C17	Sierra Madre	50	-41	16.6	0.0	1326	3	359	-15
C18	SW U.S. and N. Mexican highlands	75	-39	8.9	-0.3	1098	3	316	-17
C19	Northern South and Central America	435	3	23.2	-0.1	1176	1	816	3
C20	Caribbean	253	26	23.7	0.3	1189	3	835	12
C21	Central-northern Andes	871	-12	15.3	0.0	1063	2	822	-2
C22	Nordeste (Brazil)	202	-51	26.6	1.1	1309	4	791	-21
C23	Central eastern Brazil	467	-50	24.9	1.4	1234	4	1003	-26
C24	Amazon	1034	-19	24.5	0.3	1143	7	1404	-3
C25	Central-north Argentina	662	25	22.7	-0.6	1143	0	1067	3
C26	Pampas	513	5	22.4	0.1	1174	-1	1027	3
C27	Western Patagonia	367	44	12.9	-0.6	1200	0	604	4
C28	Semi-arid Southern Cone	271	42	17.6	-0.7	1283	-1	628	6
C29	Caucasus	303	-10	3.0	-0.1	810	1	437	-5
C30	Pamir area	289	-31	4.9	1.8	946	5	415	-5
C31	Western Asia	155	-20	8.6	1.6	899	0	399	-8
C32	Gansu-Xinjiang (China)	113	10	-2.1	0.2	870	-2	210	1
C33	Hainan (China)	396	42	21.0	-0.3	925	-3	912	19
C34	Huanghuaihai (China)	92	-6	6.4	0.5	895	-2	274	-11
C35	Inner Mongolia (China)	61	10	-4.7	0.0	883	-2	193	6
C36	Loess region (China)	99	10	2.5	0.5	940	-4	289	3
C37	Lower Yangtze (China)	594	19	10.7	0.3	700	-2	797	6
C38	Northeast China	115	16	-5.8	0.7	763	-3	244	15
C39	Qinghai-Tibet (China)	362	-3	0.4	0.0	1045	0	315	-1
C40	Southern China	426	13	15.2	0.0	865	4	789	7
C41	Southwest China	401	31	8.6	0.1	746	-6	645	12
C42	Taiwan (China)	362	25	19.3	0.0	960	-2	773	8
C43	East Asia	287	-1	-1.2	0.8	764	-2	331	4
C44	Southern Himalayas	149	-12	18.7	0.1	1132	1	502	-2
C45	Southern Asia	64	-25	25.6	-0.1	1306	2	537	-2
C46	Southern Japan and the southern fringe	467	-5	7.3	0.9	815	1	627	-1

	of the Korea peninsula								
C47	Southern Mongolia	59	-3	-11.8	0.5	802	-3	113	-8
C48	Punjab to Gujarat	56	-12	23.5	0.9	1208	1	473	6
C49	Maritime Southeast Asia	1292	-2	24.3	0.2	1158	5	1444	3
C50	Mainland Southeast Asia	302	27	24.7	0.0	1185	-1	824	12
C51	Eastern Siberia	206	-2	-8.4	1.5	558	-1	190	3
C52	Eastern Central Asia	94	7	-11.7	0.8	693	-2	156	2
C53	Northern Australia	954	-7	26.3	0.6	1302	5	1322	-3
C54	Queensland to Victoria	325	39	21.0	0.1	1143	-4	814	14
C55	Nullarbor to Darling	113	6	21.3	0.2	1261	2	616	6
C56	New Zealand	336	13	14.8	0.2	1025	1	720	-2
C57	Boreal Eurasia	322	5	-3.4	1.0	385	-1	258	2
C58	Ukraine to Ural mountains	293	13	-0.7	1.1	386	-12	345	2
C59	Mediterranean Europe and Turkey	270	-26	6.6	-0.5	820	5	517	-11
C60	W. Europe (non Mediterranean)	257	-22	4.5	0.2	600	5	481	-6
C61	Boreal America	388	25	-6.8	1.1	401	-9	200	7
C62	Ural to Altai mountains	181	-3	-4.3	2.3	529	-4	277	12
C63	Australian desert	146	32	22.4	0.0	1269	-1	624	4
C64	Sahara to Afghan deserts	55	-28	17.4	0.5	1162	1	358	-9
C65	Sub-arctic America	66	-17	-22.1	0.7	306	-4	37	4

Table A.2 January 2022 – April 2022 agroclimatic indicators and biomass by country

Country code	Country name	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure(°C)	RADPAR Current (MJ/m²)	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m²)	BIOMSS 15YA Departure (%)
ARG	Argentina	532	34	21.6	-0.5	1173	0	962	8
AUS	Australia	325	18	21.7	0.2	1173	-2	794	10
BGD	Bangladesh	83	-40	23.2	-0.1	1188	0	524	-10
BRA	Brazil	628	-38	24.7	1.1	1214	4	1097	-19
KHM	Cambodia	410	27	26.6	-0.1	1192	1	969	14
CAN	Canada	346	15	-6.3	-0.5	523	-7	211	-8
CHN	China	352	19	6.7	0.3	800	-2	460	7
EGY	Egypt	49	-3	14.6	-1.0	993	-2	271	-8
ETH	Ethiopia	94	-48	20.8	0.3	1389	2	494	-17
FRA	France	259	-29	6.2	0.4	647	6	528	-7
DEU	Germany	293	-2	3.8	0.2	528	1	499	1
IND	India	64	-26	23.4	0.0	1256	1	487	-1
IDN	Indonesia	1323	-6	24.4	0.2	1169	6	1479	1
IRN	Iran	159	-25	8.7	1.0	1019	2	396	-13
KAZ	Kazakhstan	189	6	-2.5	2.3	606	-6	323	14
MEX	Mexico	123	0	18.9	-0.1	1257	2	446	-8

Country code	Country name	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure(°C)	RADPAR Current (MJ/m²)	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m²)	BIOMSS 15YA Departure (%)
MMR	Myanmar	122	-5	21.5	0.3	1210	-3	548	1
NGA	Nigeria	101	-20	26.4	-0.6	1358	2	534	-2
PAK	Pakistan	185	-40	14.8	1.9	1088	5	452	-5
PHL	Philippines	956	48	24.6	0.0	1144	-1	1264	12
POL	Poland	262	1	2.6	0.2	482	1	455	-1
ROU	Romania	179	-31	3.0	-0.3	677	5	401	-16
RUS	Russia	246	10	-3.5	1.6	443	-9	277	6
ZAF	South Africa	137	-40	19.6	0.1	1282	2	605	-16
THA	Thailand	364	34	25.2	-0.2	1180	0	904	17
TUR	Turkey	352	-5	3.2	-1.0	831	2	491	-5
GBR	United Kingdom	306	-21	6.1	0.8	463	7	535	-2
UKR	Ukraine	225	-7	1.8	0.2	502	-5	408	-6
USA	United States	341	-5	4.8	-0.3	803	3	436	-8
UZB	Uzbekistan	228	-9	8.0	1.7	836	0	418	-4
VNM	Vietnam	381	24	20.7	-0.1	975	0	871	11
AFG	Afghanistan	183	-41	7.5	2.2	1017	5	421	-11
AGO	Angola	698	-14	21.9	-0.1	1198	2	1213	-2
BLR	Belarus	300	15	0.4	0.4	368	-11	367	-4
HUN	Hungary	141	-38	4.2	-0.4	671	6	393	-21
ITA	Italy	191	-51	6.4	-0.2	790	8	448	-22
KEN	Kenya	204	-55	21.6	0.6	1398	5	700	-21
LKA	Sri_Lanka	683	22	25.3	0.0	1249	0	1277	14
MAR	Morocco	184	-15	10.7	-0.2	1013	0	466	-5
MNG	Mongolia	70	1	-11.7	0.5	777	-2	154	1
MOZ	Mozambique	847	9	23.6	0.2	1179	-2	1269	0
ZMB	Zambia	919	-6	20.9	0.0	1166	0	1242	0
KGZ	Kyrgyzstan	351	12	-3.1	0.4	829	-1	301	5

Note: Departures are expressed in relative terms (percentage) forall variables, except for temperature, for which absolute departure in degrees Celsius is given. Zero means no change from the average value; relative departures are calculated as (C-R)/R*100, with C=current value and R=reference value, which is the fifteen-year average (15YA) for the same period between Jan- April.

Table A.3 Argentina, January 2022 – April 2022 agroclimatic indicators and biomass (by province)

	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure(°C)	RADPAR Current (MJ/m²)	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m²)	BIOMSS 15YA Departure (%)
Buenos Aires	377	55	19.8	-1.0	1205	-1	887	18
Chaco	473	-6	25.4	0.6	1115	-2	1018	-6
Cordoba	443	58	21.3	-0.9	1227	1	924	10
Corrientes	667	29	24.8	0.9	1167	0	1117	4
Entre Rios	744	94	22.2	-0.7	1165	-2	1090	17
La Pampa	211	19	20.9	-0.9	1278	2	784	12
Misiones	528	-18	23.6	0.7	1207	0	1168	-4

Santiago Del Estero	796	66	22.9	-1.1	1102	-1	1147	11
San Luis	181	-13	20.6	-0.8	1279	3	718	-5
Salta	1037	12	19.9	-0.3	1063	-1	1188	2
Santa Fe	593	58	23.1	-0.6	1151	-2	1058	14
Tucuman	975	57	18.9	-0.3	1101	-3	1079	6

Table A.4 Australia, January 2022 – April 2022 agroclimatic indicators and biomass (by state)

	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure(°C)	RADPAR Current (MJ/m²)	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m²)	BIOMSS 15YA Departure (%)
New South Wales	386	64	21.3	-0.3	1142	-7	909	24
South Australia	122	9	20.6	0.2	1174	-2	570	-1
Victoria	254	36	19.2	0.6	1113	-1	745	16
W. Australia	194	11	22.2	0.3	1267	2	652	4

Table A.5 Brazil, January 2022 – April 2022 agroclimatic indicators and biomass (by state)

	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure (°C)	RADPAR Current (MJ/m²)	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m²)	BIOMSS 15YA Departure (%)
Ceara	359	-42	26.9	0.9	1279	3	1033	-16
Goias	288	-72	25.6	2.6	1277	5	779	-46
Mato Grosso Do Sul	295	-66	26.2	1.7	1172	-3	895	-35
Mato Grosso	656	-49	25.2	1.1	1226	10	1183	-22
Minas Gerais	477	-48	23.3	1.6	1261	5	923	-28
Parana	551	-35	22.7	1.3	1160	-1	1136	-13
Rio Grande Do Sul	560	3	22.3	0.6	1158	-2	1117	2
Santa Catarina	659	-13	20.2	0.5	1132	1	1234	2
Sao Paulo	439	-59	24.2	1.9	1173	2	935	-32

Table A.6 Canada, January 2022 – April 2022 agroclimatic indicators and biomass (by province)

	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure (°C)	RADPAR Current (MJ/m²)	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m²)	BIOMSS 15YA Departure (%)
Alberta	217	20	-5.5	-0.1	529	-5	244	-3
Manitoba	298	56	-9.3	-2.1	519	-10	170	-26
Saskatchewan	212	23	-7.3	-1.0	533	-7	212	-15

Table A.7 India, January 2022 – April 2022 agroclimatic indicators and biomass (by state)

	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure (°C)	RADPAR Current (MJ/m²)	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m²)	BIOMSS 15YA Departure (%)
Andhra Pradesh	25	-39	26.6	-0.2	1337	2	506	-2
Assam	335	-17	17.8	-0.9	1034	-1	690	-4
Bihar	29	-34	22.5	-0.2	1219	2	433	-7
Chhattisgarh	5	-83	24.0	-0.3	1317	4	435	-7
Daman and Diu	2	39	26.5	0.1	1359	-1	470	44
Delhi	96	67	20.4	-0.2	1124	-1	483	10
Gujarat	7	125	26.3	0.1	1320	0	467	16
Goa	5	-61	26.7	0.0	1361	-2	478	-4
Himachal Pradesh	246	-24	11.5	1.2	1096	5	481	-4
Haryana	108	59	20.5	0.3	1115	0	495	12
Jharkhand	13	-65	22.9	0.0	1269	4	421	-8
Kerala	213	-29	25.9	-0.1	1303	-1	787	-7
Karnataka	27	-58	26.0	0.0	1343	1	500	-8
Meghalaya	257	-13	18.3	-0.8	1083	-1	682	3
Maharashtra	4	-65	26.7	0.0	1345	1	463	-1
Manipur	176	-33	15.2	-0.3	1165	1	508	-17
Madhya Pradesh	5	-70	24.1	0.2	1284	3	426	-3
Mizoram	136	-26	17.5	-0.8	1208	-1	496	-13
Nagaland	360	-20	13.2	-1.5	1063	-1	697	-5
Orissa	15	-60	24.1	-0.3	1300	5	454	-6
Puducherry	114	-5	27.2	0.1	1378	0	718	6
Punjab	174	22	19.9	0.8	1067	2	537	4
Rajasthan	29	63	23.9	0.9	1218	0	454	10
Sikkim	62	-18	12.4	2.5	1239	-1	319	4
Tamil Nadu	129	-40	26.2	0.4	1313	-1	683	-6
Tripura	165	-32	21.5	-0.5	1166	0	598	-9
Uttarakhand	129	1	14.2	0.9	1158	2	439	6
Uttar Pradesh	42	-9	21.8	-0.2	1189	1	434	-4
West Bengal	40	-42	23.8	0.0	1226	2	477	-7

Table A.8 Kazakhstan, January 2022 – April 2022 agroclimatic indicators and biomass (by oblast)

	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure (°C)	RADPAR Current (MJ/m²)	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m²)	BIOMSS 15YA Departure (%)
Akmolinskaya	136	-8	-3.9	2.8	567	-6	299	16
Karagandinskaya	115	-9	-4.1	2.5	668	-3	299	14
Kustanayskaya	178	8	-3.3	3.1	491	-12	310	19
Pavlodarskaya	101	-15	-4.5	2.3	597	1	280	10

	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure (°C)	RADPAR Current (MJ/m²)	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m²)	BIOMSS 15YA Departure (%)
Severo kazachstanskaya	124	-22	-4.3	2.7	507	-2	282	17
Vostochno kazachstanskaya	171	-6	-4.5	1.6	716	1	273	6
Zapadno kazachstanskaya	278	37	0.3	3.1	436	-24	397	18

Table A.9 Russia, January 2022 – April 2022 agroclimatic indicators and biomass (by oblast, kray and republic)

	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure (°C)	RADPAR Current (MJ/m²)	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m²)	BIOMSS 15YA Departure (%)
Bashkortostan Rep.	268	10	-4.0	2.4	392	-14	272	13
Chelyabinskaya Oblast	173	1	-4.7	2.2	439	-11	266	13
Gorodovikovsk	213	-9	3.7	0.9	594	0	515	8
Krasnodarskiy Kray	255	0	-1.5	0.7	565	0	340	2
Kurganskaya Oblast	167	-4	-4.7	2.4	411	-8	262	13
Kirovskaya Oblast	290	1	-4.2	1.8	284	-16	244	6
Kurskaya Oblast	333	27	-0.2	0.8	351	-21	359	0
Lipetskaya Oblast	329	29	-0.6	1.4	356	-20	349	5
Mordoviya Rep.	332	26	-1.7	2.0	318	-24	313	8
Novosibirskaya Oblast	154	-20	-5.5	2.7	447	0	243	11
Nizhegorodskaya O.	298	10	-2.6	1.7	293	-23	286	5
Orenburgskaya Oblast	254	10	-2.3	2.9	429	-19	322	17
Omskaya Oblast	165	-12	-4.9	3.0	428	0	257	16
Permskaya Oblast	296	7	-4.6	2.3	293	-16	240	11
Penzenskaya Oblast	354	33	-1.1	2.4	338	-23	336	13
Rostovskaya Oblast	258	4	2.7	1.4	552	-2	477	9
Ryazanskaya Oblast	339	26	-1.2	1.5	314	-24	323	3
Stavropolskiy Kray	206	-20	3.2	0.5	639	2	460	-2
Sverdlovskaya Oblast	217	3	-5.2	2.1	344	-11	235	8
Samarskaya Oblast	335	35	-1.6	2.9	348	-26	329	16
Saratovskaya Oblast	364	49	-0.1	2.8	385	-24	375	16
Tambovskaya Oblast	355	34	-0.5	1.9	364	-20	356	9
Tyumenskaya Oblast	190	-3	-5.0	2.6	386	-2	249	14

	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure (°C)	RADPAR Current (MJ/m²)	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m²)	BIOMSS 15YA Departure (%)
Tatarstan Rep.	329	27	-2.9	2.3	305	-23	283	11
Ulyanovskaya Oblast	336	37	-1.7	2.5	327	-25	319	14
Udmurtiya Rep.	314	12	-4.0	2.2	283	-20	252	10
Volgogradskaya O.	305	35	1.2	2.2	479	-12	426	13
Voronezhskaya Oblast	310	22	0.3	1.6	434	-14	389	8

Table A.10 United States, January 2022 – April 2022 agroclimatic indicators and biomass (by state)

	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure (°C)	RADPAR Current (MJ/m²)	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m²)	BIOMSS 15YA Departure (%)
Arkansas	567	7	8.7	-0.4	814	5	756	-1
California	126	-66	9.6	0.5	989	9	354	-33
Idaho	283	-22	-1.8	-1.1	720	1	323	-11
Indiana	445	-5	2.7	-0.5	698	2	497	-5
Illinois	456	8	2.2	-1.0	699	0	483	-8
Iowa	284	-8	-1.2	-1.4	684	-1	373	-13
Kansas	158	-27	5.8	-0.1	907	5	404	-17
Michigan	369	4	-2.5	-1.0	561	-8	305	-11
Minnesota	329	28	-6.2	-2.3	558	-11	232	-24
Missouri	441	9	4.5	-0.7	777	4	572	-4
Montana	242	4	-2.7	-0.8	702	-1	314	-7
Nebraska	138	-34	2.2	-0.1	840	3	372	-17
North Dakota	282	52	-5.5	-1.9	627	-6	252	-20
Ohio	422	-5	2.4	-0.2	696	4	484	-2
Oklahoma	276	-8	8.8	-0.4	903	5	533	-10
Oregon	384	-21	2.7	-0.7	683	4	431	-7
South Dakota	199	-7	-1.7	-1.0	731	-1	348	-8
Texas	183	-30	12.9	-0.6	966	5	468	-18
Washington	502	1	2.1	-0.8	566	-3	429	-4
Wisconsin	365	18	-4.4	-1.6	574	-9	271	-16

Table A.11 China, January 2022 – April 2022 agroclimatic indicators and biomass (by province)

	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure (°C)	RADPAR Current (MJ/m²)	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m²)	BIOMSS 15YA Departure (%)
Anhui	481	45	9.1	0.7	769	-5	655	8
Chongqing	460	30	9.3	0.2	702	-2	718	13
Fujian	610	1	12.7	0.6	747	4	878	5
Gansu	179	36	0.6	0.2	916	-6	331	12
Guangdong	586	8	16.0	0.1	785	10	911	4
Guangxi	510	13	14.0	-0.2	646	4	847	6
Guizhou	421	4	9.0	-0.2	578	-7	721	3

	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure (°C)	RADPAR Current (MJ/m²)	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m²)	BIOMSS 15YA Departure (%)
Hebei	52	-1	0.6	-0.3	904	-3	207	2
Heilongjiang	124	19	-7.1	1.2	709	-5	240	15
Henan	199	39	8.0	0.6	854	-5	411	5
Hubei	494	45	8.7	0.4	738	-6	710	13
Hunan	623	19	10.0	0.1	632	-2	790	3
Jiangsu	286	24	8.8	0.9	854	0	570	5
Jiangxi	713	17	11.0	0.2	648	-5	843	2
Jilin	111	6	-5.1	0.4	808	-2	260	16
Liaoning	87	8	-2.1	-0.3	866	-1	247	10
Inner Mongolia	72	22	-6.5	0.3	841	-2	189	10
Ningxia	77	13	0.4	-0.1	979	-2	243	4
Shaanxi	166	23	4.8	0.7	893	-4	366	11
Shandong	48	-45	6.3	0.6	918	-1	227	-24
Shanxi	54	-19	1.4	0.5	930	-3	217	-10
Sichuan	446	55	7.2	0.3	802	-7	590	14
Yunnan	270	22	11.1	-0.2	998	-4	605	13
Zhejiang	594	16	9.7	0.6	709	-4	795	5