

## Annex A. Agroclimatic indicators and BIOMSS

Table A.1 October 2022 - January 2023 agroclimatic indicators and biomass by global Monitoring and Reporting Unit (MRU)

105 Global MRUs	RAIN Current (mm)	RAIN 15YA dep. (%)	TEMP Current (°C)	TEMP 15YA dep. (°C)	RADP AR Current (MJ/m <sup>2</sup> )	RADP AR 15YA dep. (%)	BIOMSS Current (gDM/m <sup>2</sup> )	BIOMSS 15YA dep. (%)	
C01	Equatorial central Africa_zone1 (Cameron, Central African Republic, and South Sudan)	322	-17	23.4	-0.3	1274	0	1398	-3
C02	Equatorial central Africa_zone2 (North DRC, Equatorial Guinea, Uganda, Republic of Congo)	870	-4	22.9	-0.4	1141	-3	1336	-7
C03	Equatorial central Africa_zone3 (South DRC, Rwanda, Burundi, Gabon)	969	-15	22.3	-0.2	1181	0	857	-12
C04	Equatorial central Africa_zone4 (Angola, Zambia, and Malawi)	703	-24	22.1	0.1	1299	3	407	-13
C05	East African highlands	150	-34	18.1	0.0	1297	-1	795	-12
C06	Gulf of Guinea zone1 (Nigeria, Benin, Togo, Ghana, Cote d'Ivoire, Guinea, and Guinea Bissau)	92	-30	24.6	-0.6	1236	-1	1213	-7
C07	Gulf of Guinea zone2 (South Nigeria, Liberia, Sierra Leone, south Ghana, south Cote d'Ivoire, and west Genua)	377	-14	24.8	-0.3	1168	-2	1353	-8
C08	Horn of Africa	243	-34	21.7	0.2	1322	3	534	-13
C09	Madagascar(main)	966	13	22.3	-0.7	1333	-1	622	-1
C10	SW Madagascar	550	57	25.7	-0.4	1364	-5	430	-4
C11	North Africa Mediterranean	108	-46	13.0	1.1	746	4	533	-8
C12	Sahel	54	-13	24.7	-0.6	1231	-1	1146	9
C13	Southern Africa_zone1 (West Angolan coast)	581	-19	23.6	-0.3	1246	0	555	-10
C14	Southern Africa_zone10 (Middle part of South Africa)	126	-16	22.7	0.9	1584	0	318	-8
C15	Southern Africa_zone2 (southeastern Kenya, East Tanzania, and Mozambique)	557	-14	25.2	0.1	1379	4	488	-9
C16	Southern Africa_zone3 (South Zambia)	680	-19	24.1	-0.2	1325	-2	379	-11
C17	Southern Africa_zone4 (Zimbabwe)	539	-19	23.6	0.1	1392	1	378	-7
C18	Southern Africa_zone5 (Northeast of Namibia, Botswana, and south Zimbabwe and Mozambique)	246	-44	25.1	0.6	1393	1	404	-3
C19	Southern Africa_zone6 (West Namibia coast)	223	-21	24.4	0.2	1397	-5	415	0
C20	Southern Africa_zone7 (Southeast Namibia, Southwest Botswana, and northeast of South Africa)	32	-41	25.6	1.6	1671	-4	288	-1
C21	Southern Africa_zone8 (South Africa and southwest Namibia)	32	-53	20.1	0.9	1652	-1	336	-26

C2 2	Southern Africa_zone9 (western part of South Africa, Lesotho, and Eswatini)	176	-43	20.8	1.2	1470	3	384	-12
C2 3	S. Africa Western Cape	93	-38	18.9	0.9	1530	0	424	-26
C2 4	British Columbia To Colorado	315	-11	-2.5	-0.3	448	1	552	-12
C2 5	America northern great plains_canada	159	9	-4.1	0.0	321	0	547	-15
C2 6	America northeastern great plains	217	-10	2.0	0.3	483	0	689	-17
C2 7	America northwestern great plains	153	6	-1.0	-0.8	464	-2	574	-17
C2 8	Nnorth of high plain	150	-10	6.1	0.1	630	-2	709	-19
C2 9	America corn belt	383	-3	3.5	1.3	423	0	851	-4
C3 0	America cotton belt_Mexican coastal plain	315	12	12.9	0.5	664	-7	870	-9
C3 1	America cotton belt_lower Mississippi	565	17	12.7	1.2	606	-4	1033	-7
C3 2	America cotton belt_high plain	366	-6	11.8	1.1	625	-2	1033	-4
C3 3	Sub_boreal North America	211	-3	-5.2	1.2	247	2	619	-14
C3 4	America West Coast	570	11	7.2	-0.9	520	-1	476	-11
C3 5	Sierra Madre	165	-33	15.4	0.0	1050	0	1113	-8
C3 6	SW Mexico and N. Mexico highlands	144	5	8.0	-0.5	760	-3	743	-3
C3 7	Northern South and Central America	640	-9	22.3	0.0	1048	0	1358	-2
C3 8	Caribbean	269	-29	24.1	0.4	1060	3	1336	-3
C3 9	Central_Northern Andes	523	45	15.2	-1.8	1323	-5	257	-28
C4 0	Central_Northern Andes	699	-26	15.4	0.1	1170	3	537	-15
C4 1	Brazil Nordeste	154	-43	26.8	0.8	1332	-1	567	-2
C4 2	Central_Eastern Brazil	400	-57	26.0	1.4	1239	-2	572	-21
C4 3	Amazon	765	-27	25.7	0.4	1162	0	815	-14
C4 4	Central_North Argentina	761	39	23.6	-0.6	1331	-4	485	-5
C4 5	SE Brazil_Concepcion_Bahia Blanca	419	-24	22.2	0.1	1430	1	689	-9
C4 6	SW Southern Cone	196	-33	13.6	1.1	1519	2	535	-4
C4 7	Semi_arid Southern Cone	447	150	18.6	0.2	1536	-6	364	7
C4 8	Caucasus	192	-35	5.4	1.0	573	2	535	-12
C4 9	Central Asia Pamir mountains	186	-3	2.6	-0.1	714	-1	552	6
C5 0	Western Asia (Kazakhstan,Uzbekistan,Turkm enistan,Iran et.al)	113	-16	6.9	0.4	662	0	551	15
C5 1	Western Asia(Syrian, Jordan,Israel, et.al)	116	-53	13.7	1.3	710	4	489	-6
C5 2	Gansu-Xinjiang (China)	87	16	-5.0	-1.3	589	-1	528	-5
C5 3	Hainan (China)	552	-5	20.3	-0.4	757	0	1525	2
C5 4	Huanghuaihai (China)	127	47	5.9	0.5	650	0	877	-4
C5 5	Inner Mongolia (China)	61	15	-6.2	0.1	578	-1	647	-5
C5 6	Loess region (China)	108	31	1.1	0.5	678	-3	784	-4

C5 7	Lower Yangtze (China)	243	-19	11.4	1.0	682	7	983	-20
C5 8	Northeast China	124	28	-7.3	0.3	468	-3	859	9
C5 9	Qinghai-Tibet (China)	205	-2	1.5	1.0	881	1	755	2
C6 0	Southern China	264	-24	15.1	0.6	805	9	1280	-8
C6 1	Southwest China	202	-26	8.4	0.7	651	10	1054	-8
C6 2	Taiwan (China)	361	11	19.9	-0.4	824	1	1134	-2
C6 3	East Asia	296	-8	-0.4	0.6	502	1	1021	5
C6 4	Southern Himalayas_zone111 (Vietnam, Laos, Myanmar)	261	-22	16.6	0.5	855	13	1415	-1
C6 5	Southern Himalayas_zone112 (Myanmar)	169	-44	16.0	0.4	1065	8	1365	0
C6 6	Southern Himalayas_zone12 (India, Myanmar, Bangladesh, Bhutan)	309	-9	16.0	-0.2	966	6	1390	0
C6 7	Southern Himalayas_zone222 (Nepal, India)	121	18	16.1	0.0	972	1	1260	5
C6 8	Southern Asia	299	0	22.0	-0.1	1106	2	1425	6
C6 9	Southern Japan and Korea	353	-25	10.0	1.2	610	5	1238	0
C7 0	Mongolia region (Western of Mongolia)	39	-22	-14.0	-0.5	472	1	417	-9
C7 1	S. Asia Punjab to Gujarat	53	10	20.1	-0.1	982	0	1187	25
C7 2	SE Asia islands_zone1 (Indonesia, Malaysia)	1445	2	24.2	-0.2	1088	0	1424	10
C7 3	SE Asia islands_zone2 (Indonesia, Malaysia)	1370	4	24.4	0.1	1101	2	1560	6
C7 4	SE Asia islands_zone3 (Indonesia, Papua New Guinea)	1404	-6	23.9	0.2	1135	2	1367	8
C7 5	SE Asia mainland_zone1 (Myanmar, Bangladesh)	198	-36	22.9	0.8	1103	4	1464	-5
C7 6	SE Asia mainland_zone2 (Thailand, Myanmar, Laos)	637	24	22.5	-0.2	1068	0	1515	3
C7 7	SE Asia mainland_zone3 (Cambodia, Vietnam, Thailand, Laos)	525	6	22.0	-0.4	1001	1	1565	3
C7 8	Eastern Siberia	191	-21	-9.1	0.5	284	4	810	6
C7 9	Eastern Central Asia (Eastern of Mongolia)	67	-12	-13.7	0.0	375	1	658	0
C8 0	North Australia_zone1 (Timor Leste, Indonesia, Papua New Guinea)	1066	12	26.4	-0.1	1391	0	1018	27
C8 1	North Australia_zone2 (Northern Australia)	764	31	26.4	0.0	1367	-3	635	24
C8 2	Australia Queensland to Victoria_zone1 (Southeast Australia coast)	352	7	17.8	-1.5	1346	-5	789	32
C8 3	Australia Queensland to Victoria_zone21 (Southeast Australia Marrin Darling)	257	34	21.0	-1.9	1433	-6	728	46
C8 4	Australia Queensland to Victoria_zone22 (Southeast Australia Adeleid)	234	24	16.5	-0.4	1265	-6	786	10
C8 5	Australia Nullarbor_Darling_zone1 (Southwest Australia)	85	-17	18.8	-1.4	1480	-3	572	10
C8 6	Australia Nullarbor_Darling_zone2 (Southwest Australia)	86	-19	18.3	-0.9	1496	-2	696	2
C8 7	New Zealand	540	67	13.5	0.1	1163	-10	700	7
C8 8	Boreal Eurasia	361	-4	-2.5	0.6	122	-2	692	-4
C8 9	Ukraine to URAL Mountains	290	7	-0.1	0.8	167	-11	707	4

C90	Mediterranean Europe and Türkiye	332	-13	10.0	1.6	544	1	579	-5
C91	W. Europe_zone1 (Germany, Poland, Switzerland, Czechia, Hungary, Austria, and Balkans countries)	290	-10	5.3	1.7	291	2	655	-12
C92	W. Europe_zone10 (Northwestern Greece and southwestern of Albania)	689	-3	10.4	1.7	536	3	747	-7
C93	W. Europe_zone2 (Southeastern of Romania, Moldova, and southwestern Urania)	166	-29	7.2	2.5	364	1	501	-18
C94	W. Europe_zone3 (Ebro River, Zaragoza, Spain)	168	-16	9.1	1.8	518	-3	568	-2
C95	W. Europe_zone4 (Northeastern of Italy and southwestern coast of France)	351	-18	10.5	2.9	441	0	794	5
C96	W. Europe_zone5 (North Italy)	417	-9	8.6	2.0	367	-6	928	5
C97	W. Europe_zone6 (Switzerland, North Italy and west Austria)	386	-20	2.1	1.9	399	-1	856	7
C98	W. Europe_zone7 (Ireland, United Kingdom, France, Belgium, Netherland)	410	-5	7.6	1.1	273	6	725	-8
C99	W. Europe_zone8 (Northwest of Türkiye and northeast of Greece)	202	-51	11.3	3.3	489	5	604	-13
C100	W. Europe_zone9 (North Greece and North Macedonia)	281	-22	9.0	2.9	513	5	713	-8
C101	Boreal North America	414	3	-4.7	1.8	128	-7	634	-1
C102	URAL to Altai Mountains	195	3	-6.5	0.2	270	-1	645	6
C103	Australian Desert (Central Australia)	120	12	21.6	-1.1	1545	-3	508	14
C104	Old World Deserts	52	-15	17.4	0.7	927	-1	534	24
C105	Sub Arctic America (IceLand)	128	14	-18.4	0.8	39	-6	315	5

Table A.2 October 2022 - January 2023 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/m <sup>2</sup> )	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m <sup>2</sup> )	BIOMSS 15YA Departure (%)
AFG	Argentina	427	-3	22.5	0.5	1443	-1	992	-1
AUS	Australia	324	17	19.7	-1.4	1393	-5	832	2
BGD	Bangladesh	264	-1	21.0	0.2	1008	3	580	-1
BRA	Brazil	464	-49	25.6	1.0	1242	-1	1007	-23
KHM	Cambodia	607	22	23.7	-0.5	1068	0	1066	10
CAN	Canada	299	-6	-2.8	1.2	290	2	287	11
CHN	China	195	-14	6.4	0.6	665	5	345	-6
EGY	Egypt	39	-30	17.4	0.2	794	3	221	-13
ETH	Ethiopia	109	-33	18.1	0.0	1307	-1	445	-14
FRA	France	386	-7	8.0	1.5	346	4	626	8
DEU	Germany	298	-12	5.4	1.3	245	7	531	7
IND	India	206	4	19.9	-0.2	1049	2	516	1
IDN	Indonesia	1367	-2	24.4	0.0	1142	2	1490	2
IRN	Iran	144	-19	8.7	0.6	765	0	334	-9
KAZ	Kazakhstan	172	4	-5.0	0.0	349	0	252	1
MEX	Mexico	240	-19	18.0	0.2	1000	0	493	-13
MMR	Myanmar	244	-28	19.5	0.4	1073	5	582	-14
NGA	Nigeria	125	-32	24.0	-0.9	1249	0	513	-13
PAK	Pakistan	96	-17	12.4	0.6	857	-1	258	-14

Country code	Country name	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure(°C)	RADPAR Current (MJ/m <sup>2</sup> )	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m <sup>2</sup> )	BIOMSS 15YA Departure (%)
PHL	Philippines	1437	31	24.5	0.0	992	-4	1398	6
POL	Poland	230	-15	4.3	1.2	208	1	479	6
ROU	Romania	213	-14	5.9	2.5	385	2	443	-1
RUS	Russia	239	3	-4.2	0.5	211	-5	254	1
SYR	Syria	159	-41	21.2	1.1	1493	2	726	-15
ZAF	South Africa	538	23	22.4	-0.3	1061	0	870	3
THA	Thailand	190	-46	7.3	1.6	598	4	406	-23
TUR	Türkiye	483	-2	7.3	0.8	183	9	612	6
GBR	United Kingdom	229	-1	3.6	1.4	252	-7	444	7
UKR	Ukraine	328	1	6.2	0.5	539	-2	477	6
USA	United States	141	-5	3.8	-1.1	621	2	258	-13
UZB	Uzbekistan	563	-6	19.6	0.2	864	6	910	-2
VNM	Vietnam	96	-28	4.6	0.0	780	0	258	-16
AFG	Afghanistan	663	-25	23.1	0.1	1245	0	1159	-8
AGO	Angola	338	20	1.9	1.1	136	-15	409	7
BLR	Belarus	238	0	6.4	2.1	336	-1	520	10
HUN	Hungary	402	-9	9.8	2.1	464	2	629	6
ITA	Italy	281	-30	20.4	0.1	1298	0	759	-14
KEN	Kenya	1067	-9	24.3	-0.3	1106	1	1416	3
LKA	Sri Lanka	151	-28	12.7	1.0	772	0	364	-19
MAR	Morocco	50	-4	-13.9	-0.5	447	0	112	-3
MNG	Mongolia	571	-12	25.4	0.1	1371	3	1123	-3
MOZ	Mozambique	723	-18	23.4	-0.1	1316	0	1147	-6
ZMB	Zambia	228	12	-5.8	-1.5	596	0	227	-2
KGZ	Kyrgyzstan	110	-54	13.9	1.2	711	4	345	-29

Note: Departures are expressed in relative terms (percentage) for all 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 Oct-Jan.

Table A.3 October 2022 - January 2023 agroclimatic indicators and biomass (by province)

	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure(°C)	RADPAR Current (MJ/m <sup>2</sup> )	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m <sup>2</sup> )	BIOMSS 15YA Departure (%)
Buenos Aires	178	-33	21.6	1.4	1505	-1	789	-9
Chaco	435	-24	24.7	-0.3	1392	4	1085	-11
Cordoba	500	74	23.0	0.3	1462	-3	1129	19
Corrientes	462	-25	23.5	-0.2	1442	3	1155	-6
Entre Rios	206	-50	23.4	1.0	1470	0	860	-19
La Pampa	271	14	22.9	1.2	1538	-2	950	8
Misiones	663	-12	21.8	-1.2	1456	4	1268	-7
Santiago Del Estero	618	19	24.5	-0.2	1322	-4	1166	0
San Luis	432	83	21.7	0.0	1488	-4	1103	24
Salta	1130	24	21.2	-0.1	1281	-1	1246	0
Santa Fe	340	-22	24.4	0.7	1452	0	1002	-8
Tucuman	1171	101	19.7	-0.4	1277	-9	1249	16

Table A.4 October 2022 - January 2023 agroclimatic indicators and biomass (by state)

	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure(°C)	RADPAR Current (MJ/m <sup>2</sup> )	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m <sup>2</sup> )	BIOMSS 15YA Departure (%)
New South Wales	324	13	19.2	-2.3	1431	-4	921	5
South Australia	181	29	18.7	-0.8	1373	-6	719	6
Victoria	345	39	16.5	-1.1	1271	-9	843	8
W. Australia	158	2	19.5	-1.1	1485	-2	594	-10

Table A.5 October 2022 - January 2023 agroclimatic indicators and biomass (by state)

	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure (°C)	RADPAR Current (MJ/m <sup>2</sup> )	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m <sup>2</sup> )	BIOMSS 15YA Departure (%)
Ceara	133	-37	27.9	0.2	1363	-1	723	-3
Goias	150	-86	27.6	3.1	1219	-5	674	-54
Mato Grosso Do Sul	323	-64	26.8	0.9	1272	-4	946	-34
Mato Grosso	535	-57	26.8	1.5	1154	-1	1066	-29
Minas Gerais	384	-65	24.6	2.0	1239	-3	940	-32
Parana	638	-28	21.6	-0.2	1336	1	1178	-16
Rio Grande Do Sul	383	-37	21.1	-0.2	1430	3	1057	-12
Santa Catarina	848	5	18.7	-0.6	1317	4	1281	-1
Sao Paulo	328	-70	24.6	1.5	1282	0	895	-38

Table A.6 Canada, October 2022 - January 2023 agroclimatic indicators and biomass (by province)

	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure (°C)	RADPAR Current (MJ/m <sup>2</sup> )	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m <sup>2</sup> )	BIOMSS 15YA Departure (%)
Alberta	139	-9	-4.7	0.3	279	2	273	11
Manitoba	200	4	-4.9	0.7	280	-2	258	1
Saskatchewan	159	2	-5.1	0.1	296	2	263	3

Table A.7 India, October 2022 - January 2023 agroclimatic indicators and biomass (by state)

	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure (°C)	RADPAR Current (MJ/m <sup>2</sup> )	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m <sup>2</sup> )	BIOMSS 15YA Departure (%)
Andhra Pradesh	338	44	22.6	-0.1	1110	0	783	12
Assam	387	13	16.5	-0.9	909	4	548	-6
Bihar	115	-4	18.5	-0.6	989	3	387	-5
Chhattisgarh	77	-34	19.6	0.0	1116	4	431	-10

	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure (°C)	RADPAR Current (MJ/m <sup>2</sup> )	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m <sup>2</sup> )	BIOMSS 15YA Departure (%)
Daman and Diu	27	-37	26.1	0.0	1147	0	449	-6
Delhi	168	198	17.0	-0.8	892	-3	393	27
Gujarat	49	32	24.0	-0.1	1097	0	404	-3
Goa	269	10	25.8	-0.1	1202	2	772	5
Himachal Pradesh	101	-36	9.4	0.6	884	0	301	-9
Haryana	87	63	17.2	-0.4	884	-2	330	9
Jharkhand	116	-12	18.4	0.0	1055	3	427	-6
Kerala	660	-10	23.9	-0.5	1137	2	1076	-2
Karnataka	336	15	22.1	-0.5	1148	1	779	5
Meghalaya	430	19	16.9	-0.8	924	3	573	-3
Maharashtra	181	49	22.3	-0.3	1144	2	578	6
Manipur	191	-49	13.1	-0.9	998	10	446	-25
Madhya Pradesh	88	50	19.1	-0.3	1065	3	404	6
Mizoram	328	-12	15.7	-1.0	1046	7	508	-17
Nagaland	349	-21	12.1	-1.6	929	11	504	-21
Orissa	158	-19	20.5	0.3	1107	3	482	-14
Puducherry	544	-2	26.0	0.4	1146	0	1103	3
Punjab	56	-33	16.6	-0.3	850	0	304	-7
Rajasthan	61	110	19.6	-0.2	993	0	321	4
Sikkim	46	-33	12.2	2.7	1006	-4	234	-6
Tamil Nadu	653	-2	23.9	0.2	1094	2	1104	3
Tripura	231	-37	19.1	-0.1	1002	5	563	-8
Uttarakhand	154	91	12.0	1.1	921	-2	278	2
Uttar Pradesh	125	83	17.6	-0.6	956	0	356	4
West Bengal	172	-4	20.9	0.5	1017	2	501	-4

Table A.8 Kazakhstan, October 2022 - January 2023 agroclimatic indicators and biomass (by oblast)

	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure (°C)	RADPAR Current (MJ/m <sup>2</sup> )	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m <sup>2</sup> )	BIOMSS 15YA Departure (%)
Akmolinskaya	144	-1	-6.4	0.4	305	2	238	4
Karagandinskaya	117	-7	-6.9	0.0	376	3	228	1
Kustanayskaya	170	15	-5.7	0.4	264	-3	248	3
Pavlodarskaya	125	-3	-6.5	0.6	280	1	240	6
Severo kazachstanskaya	179	13	-6.6	0.5	232	1	228	3
Vostochno kazachstanskaya	203	-4	-6.5	0.0	400	2	232	2
Zapadno kazachstanskaya	191	6	-1.6	0.6	263	-9	341	8

Table A.9 Russia, October 2022 - January 2023 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/m <sup>2</sup> )	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m <sup>2</sup> )	BIOMSS 15YA Departure (%)
Bashkortostan Rep.	245	-1	-5.7	0.2	187	-3	234	1
Chelyabinskaya Oblast	171	8	-6.4	0.3	217	-1	225	2

	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure (°C)	RADPAR Current (MJ/m <sup>2</sup> )	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m <sup>2</sup> )	BIOMSS 15YA Departure (%)
Gorodovikovsk	131	-42	4.7	1.1	332	-4	366	-23
Krasnodarskiy Kray	201	-27	-1.2	0.7	310	3	285	-11
Kurganskaya Oblast	168	-1	-6.6	0.4	182	-2	223	3
Kirovskaya Oblast	330	6	-4.3	0.6	92	-17	251	5
Kurskaya Oblast	318	16	0.4	0.8	168	-16	367	3
Lipetskaya Oblast	326	26	-0.5	0.7	162	-16	346	3
Mordoviya Rep.	312	16	-2.3	0.5	141	-16	302	3
Novosibirskaya Oblast	230	4	-7.7	0.7	177	-5	207	5
Nizhegorodskaya O.	307	6	-2.7	0.4	115	-14	289	3
Orenburgskaya Oblast	230	10	-4.5	0.2	242	-5	267	1
Omskaya Oblast	204	5	-7.2	0.8	164	-7	216	7
Permskaya Oblast	272	-8	-5.9	0.5	115	-6	226	5
Penzenskaya Oblast	294	10	-2.1	0.5	158	-15	307	3
Rostovskaya Oblast	194	-18	3.2	1.2	288	-8	426	-1
Ryazanskaya Oblast	324	18	-1.2	0.6	131	-19	325	2
Stavropol'skiy Kray	162	-30	4.5	0.9	367	-2	402	-13
Sverdlovskaya Oblast	190	-8	-6.8	0.4	141	-1	216	5
Samarskaya Oblast	283	16	-3.2	0.4	182	-11	292	3
Saratovskaya Oblast	251	7	-1.6	0.6	206	-14	332	4
Tambovskaya Oblast	323	22	-0.9	0.7	163	-17	337	3
Tyumenskaya Oblast	191	-5	-7.1	0.6	146	-6	214	5
Tatarstan Rep.	298	12	-3.8	0.5	136	-12	268	3
Ulyanovskaya Oblast	278	14	-2.8	0.6	157	-15	294	4
Udmurtiya Rep.	315	7	-4.7	0.7	110	-12	248	6
Volgogradskaya O.	214	1	0.4	0.8	248	-13	386	6
Voronezhskaya Oblast	319	30	0.1	0.7	204	-14	368	3

Table A.10 United States, October 2022 - January 2023 agroclimatic indicators and biomass (by state)

	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure (°C)	RADPAR Current (MJ/m <sup>2</sup> )	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m <sup>2</sup> )	BIOMSS 15YA Departure (%)
Arkansas	519	13	10.1	0.9	570	-5	790	10
California	514	53	9.1	-0.9	626	-4	566	19
Idaho	310	-6	-1.1	-0.4	465	2	356	1
Indiana	286	-28	5.4	1.0	482	2	575	6



	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure (°C)	RADPAR Current (MJ/m <sup>2</sup> )	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m <sup>2</sup> )	BIOMSS 15YA Departure (%)
Illinois	304	-15	5.0	0.8	501	3	567	6
Iowa	244	-5	1.9	0.4	467	-2	461	6
Kansas	155	-14	6.2	0.2	616	-2	378	-3
Michigan	293	-16	2.3	1.1	356	2	446	7
Minnesota	229	-2	-1.6	0.9	367	-2	346	6
Missouri	331	1	6.2	0.5	554	0	611	9
Montana	183	-1	-2.4	-1.0	427	-1	314	-1
Nebraska	148	-2	2.5	-0.3	561	-1	384	7
North Dakota	161	1	-2.9	-0.4	392	-1	313	4
Ohio	289	-24	5.0	0.9	454	1	553	5
Oklahoma	258	2	9.5	0.4	623	-6	543	9
Oregon	433	-16	3.0	-0.9	434	5	447	-3
South Dakota	149	-8	-0.2	-0.5	482	0	349	2
Texas	293	12	13.5	0.5	674	-7	551	6
Washington	513	-9	2.5	-0.4	346	6	444	2
Wisconsin	295	4	0.2	1.2	377	-3	393	7

Table A.11 China, October 2022 - January 2023 agroclimatic indicators and biomass (by province)

	RAIN Current (mm)	RAIN 15YA Departure (%)	TEMP Current (°C)	TEMP 15YA Departure (°C)	RADPAR Current (MJ/m <sup>2</sup> )	RADPAR 15YA Departure (%)	BIOMSS Current (gDM/m <sup>2</sup> )	BIOMSS 15YA Departure (%)
Anhui	208	-5	9.2	0.6	659	2	458	-3
Chongqing	202	-28	9.3	0.7	609	11	479	-13
Fujian	375	-5	13.5	1.1	637	1	732	9
Gansu	105	-6	-0.5	0.3	675	-5	248	2
Guangdong	371	-5	16.4	0.5	757	4	675	-2
Guangxi	205	-45	14.8	0.9	751	15	518	-26
Guizhou	181	-49	9.5	0.8	610	24	486	-26
Hebei	78	43	-0.4	0.2	614	-1	195	15
Heilongjiang	109	10	-9.2	0.4	423	-3	194	7
Henan	164	42	7.4	0.7	666	0	331	9
Hubei	164	-28	8.9	0.9	679	6	404	-15
Hunan	162	-50	11.1	1.3	724	19	433	-29
Jiangsu	189	-2	9.4	0.6	660	2	457	2
Jiangxi	280	-21	11.9	1.0	691	9	573	-8
Jilin	147	41	-6.3	0.3	504	-4	234	15
Liaoning	137	54	-2.4	0.1	555	-3	280	31
Inner Mongolia	57	7	-8.3	0.0	537	0	151	9
Ningxia	57	-2	-1.3	-0.1	696	-3	174	-4
Shaanxi	190	62	3.2	0.5	648	-4	320	16
Shandong	114	47	5.8	0.5	657	0	274	13
Shanxi	96	50	-0.4	0.5	653	-2	235	23
Sichuan	260	0	7.0	0.7	615	1	468	0
Yunnan	172	-43	10.4	0.4	830	12	435	-26
Zhejiang	332	-12	10.7	0.8	599	-2	673	2